					ST DEPARTMENT DIVISION C		URAL RES				AMENI	FC DED REPOI	PRM 3	
		AF	PLICATION FO	OR PERM	IT TO DRILL					1. WELL NAME and N	JMBER NBU 102:	2-5G1BS		
2. TYPE O	F WORK	DRILL NEW WELL	(iiii) REENTER	P&A WELL	DEEPEN	WELL ()			3. FIELD OR WILDCAT NATURAL BUTTES				
4. TYPE O	F WELL	G	as Well Co	nalbed Meth	nane Well: NO					5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES				
6. NAME (OF OPERATOR									7. OPERATOR PHONE				
KERR-MCGEE OIL & GAS ONSHORE, L.P. 720 929-6515 8. ADDRESS OF OPERATOR 9. OPERATOR E-MAIL														
P.O. Box 173779, Denver, CO, 80217 10. MINERAL LEASE NUMBER										julie.jacobson@anadarko.com 12. SURFACE OWNERSHIP				
		JTU-01191-A	(faal)	FED	ERAL (III) INC	DIAN 🔵	STATE () FEE()	-	DIAN (STATE		EE 💭
13. NAME OF SURFACE OWNER (if box 12 = 'fee') 14. SURFACE OWNER PHONE (if box 12 = 'fee')														
15. ADDR	ESS OF SURFA	CE OWNER (if box	12 = 'fee')							16. SURFACE OWNER	K E-MAIL	(If box 12	? = 'fee')	
	N ALLOTTEE O	R TRIBE NAME			TEND TO COMM		RODUCTION	N FROM	_	19. SLANT		_		_
				YES	(Submit C	ommingli	ing Applicati	on) NO [2_	VERTICAL DIF	RECTIONA	AL (III)	HORIZON	ΓAL 🔵
20. LOC	ATION OF WELL	-		FOOTAGE	S	QTF	R-QTR	SECT	ION	TOWNSHIP	R/	ANGE	ME	ERIDIAN
LOCATIO	N AT SURFACE		1084	FNL 195	1 FEL	NV	WNE	5		10.0 S	22	2.0 E		S
Top of U	Top of Uppermost Producing Zone 1617 F			7 FNL 182	3 FEL	SV	WNE	5		10.0 S	22	2.0 E	S	
At Total Depth 1617					3 FEL	SV	WNE	5		10.0 S		22.0 E S		S
21. COUN	TY	UINTAH		22. DIS	STANCE TO NEA	REST LEA 829		eet)		23. NUMBER OF ACRI	ES IN DRI 13		IT	
					STANCE TO NEA led For Drilling		leted)	POOL		26. PROPOSED DEPTI MD:		TVD: 102	260	
27. ELEV	ATION - GROUN	5152		28. BC	OND NUMBER	WYB00	00291			29. SOURCE OF DRIL WATER RIGHTS APPR		MBER IF A	PPLICAB	LE
					Hole, Casing			rmation						
String	Hole Size	Casing Size	Length	Weight	Grade & T		Max Mu			Cement		Sacks	Yield	Weight
Surf	11	8.625	0 - 2520	28.0	J-55 LT	&C	0.	.2		Type V Class G		180 270	1.15	15.8 15.8
Prod	7.875	4.5	0 - 10292	11.6	HCP-110	LT&C	12	.5	Pre	mium Lite High Stre	ngth	310	3.38	12.0
										50/50 Poz		1490	1.31	14.3
					А	TTACHN	MENTS							
	VEF	RIFY THE FOLLO	WING ARE AT	ACHED I	N ACCORDAN	ICE WITI	H THE UT	AH OIL AN	ID GAS	CONSERVATION G	ENERA	L RULES		
№ w	ELL PLAT OR M	AP PREPARED BY	LICENSED SURVE	YOR OR E	NGINEER		СОМ	PLETE DRII	LLING PI	LAN				
AF	FIDAVIT OF STA	ATUS OF SURFACE	OWNER AGREEN	IENT (IF FE	EE SURFACE)		FORM	1 5. IF OPER	RATOR IS	S OTHER THAN THE LE	EASE OW	NER		
I DII	RECTIONAL SU	RVEY PLAN (IF DIR	ECTIONALLY OR	HORIZON	TALLY DRILLED)	торс	GRAPHICA	L MAP					
NAME Gina Becker TITLE Regulatory Analyst II									PHON	E 720 929-6086				
SIGNATU	RE			DATE	02/06/2013				EMAIL	. gina.becker@anadark	o.com			
	BER ASSIGNED 047535850			APPRO	OVAL				Bro	ocyill				
	Pe									nit Manager				

NBU 1022-5B Pad Drilling Program

1 of 6

Kerr-McGee Oil & Gas Onshore, L.P.

NBU 1022-5G1BS

Surface: 1084 FNL / 1951 FEL NWNE BHL: 1617 FNL / 1823 FEL SWNE

Section 5 T10S R22E

Unitah County, Utah Mineral Lease: UTU-01191-A

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2.a <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,260'	
Birds Nest	1,570'	Water
Mahogany	2,072'	Water
Wasatch	4,479'	Gas
Mesaverde	7,034'	Gas
Sego	9,136'	Gas
Castlegate	9,218'	Gas
Blackhawk	9,660'	Gas
TVD =	10,260'	
TD =	10,292'	

2.b Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr-McGee drills to a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

NBU 1022-5B Pad Drilling Program 2 of 6

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. Evaluation Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. **Abnormal Conditions:**

7.a Blackhawk (Part of Mesaverde Group)

Maximum anticipated bottom hole pressure calculated at 6,566 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,295 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

7.b Wasach Formation/Mesaverde Group

Maximum anticipated bottom hole pressure calculated at 9136' TVD, approximately equals 5,573 psi (0.61 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,587 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

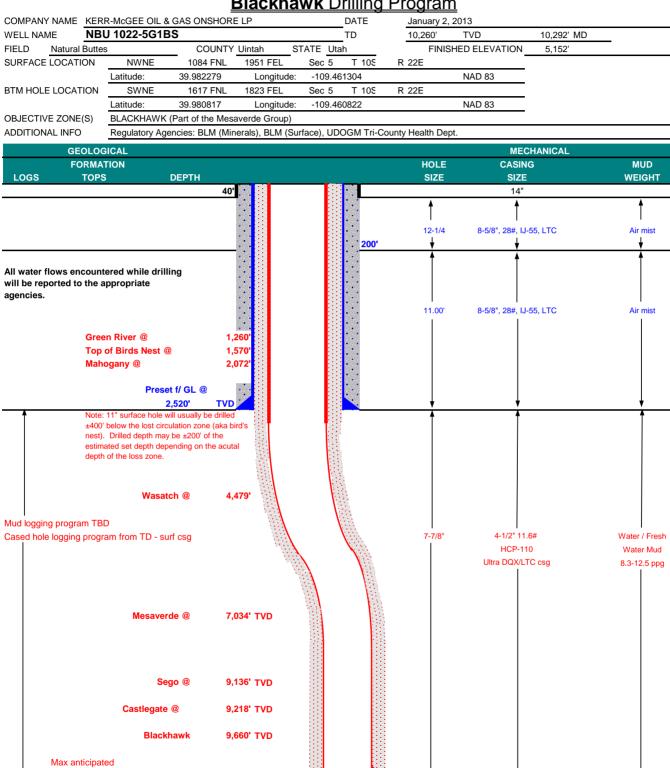
1/3/2013



Mud required

12.5 ppg

KERR-McGEE OIL & GAS ONSHORE LP Blackhawk Drilling Program



10,260' TVD

10,292' MD

TD@



KERR-McGEE OIL & GAS ONSHORE LP Blackhawk Drilling Program

CASING PROGRAM

CONDUCTOR

SURFACE PRODUCTION

<u>u</u>				DEGIGITI NOTORO					
								LTC	DQX
SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
14"	()-40'							
						3,390	1,880	348,000	N/A
8-5/8"	0	to 2,52	28.00	IJ-55	LTC	2.14	1.59	5.63	N/A
						10,690	8,650	279,000	367,174
4-1/2"	0	to 5,00	11.60	HCP-110	DQX	1.19	1.30		3.80
4-1/2"	5,000	to 10,29	2' 11.60	HCP-110	LTC	1.19	1.30	5.62	

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

ĺ	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD			
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15			
Option 1		+ 0.25 pps flocele								
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15			
		+ 2% CaCl + 0.25 pps flocele								
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized								
Option 2 LEAD	2,020'	Premium cmt + 16% Gel + 10 pps gilsonite	250	35%	12.00		2.86			
		+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps								
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15			
		+ 0.25 pps flocele								
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15			
PRODUCTION LEAD	3,972'	Premium Lite II +0.25 pps celloflake + .4% FL-52	310	35%	12.00		3.38			
		+ .3% R-3 + .5 lbs/sk Kol-Seal + 6%Bentonite II +								
		1.2% Sodium Metasilicate + .05 lbs/sk Static Free								
TAIL	6,320'	50/50 Poz/G + 10% salt + .05 lbs/sk Static Free	1,490	35%	14.30		1.31			
		+ 1.2% Sodium Metasilicate + .5 % EC-1								
		+.002 gps FP-6L + 2% Bentonite II								

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

DRILLING ENGINEER:

DRILLING SUPERINTENDENT:

Nick Sperice / John Fuckwiller / Brian Coccillere / Tyler Elliott

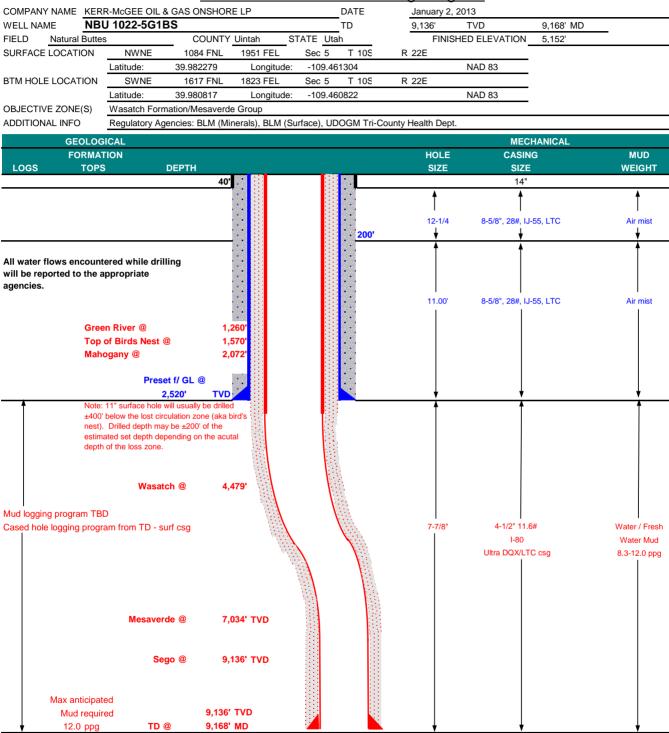
Kenny Gathings / Lovel Young

DATE:

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



KERR-McGEE OIL & GAS ONSHORE LP Wasatch/Mesaverde Drilling Program





KERR-McGEE OIL & GAS ONSHORE LP
Wasatch/Mesaverde Drilling Program

CASING PROGRAM	<u>M</u>							DESIGN FACTORS			
										LTC	DQX
	SIZE	INT	ERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	C)-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,520	28.00	IJ-55	LTC	2.14	1.59	5.63	N/A
								7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.11		3.07
								7,780	6,350	223,000	
	4-1/2"	5,000	to	9,168'	11.60	I-80	LTC	1.11	1.11	5.65	

Surface Casing:

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

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		+ 2% CaCl + 0.25 pps flocele							
SURFACE	NOTE: If well will circulate water to surface, option 2 will be utilized								
Option 2 LEAD	2,020'	Premium cmt + 16% Gel + 10 pps gilsonite	250	35%	12.00	2.86			
		+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps							
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15			
		+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps							
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15			
PRODUCTION LEAD	3,978'	Premium Lite II +0.25 pps celloflake + .4% FL-52	310	35%	12.00	3.38			
		+ .3% R-3 + .5 lbs/sk Kol-Seal + 6%Bentonite II +							
		1.2% Sodium Metasilicate + .05 lbs/sk Static Free							
TAIL	5,190'	50/50 Poz/G + 10% salt + .05 lbs/sk Static Free	1,230	35%	14.30	1.31			
		+ 1.2% Sodium Metasilicate + .5 % EC-1							
		+.002 gps FP-6L + 2% Bentonite II							

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

ADDITIONAL INFORMATION

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Surveys will be taken at 1,000' minimum intervals.

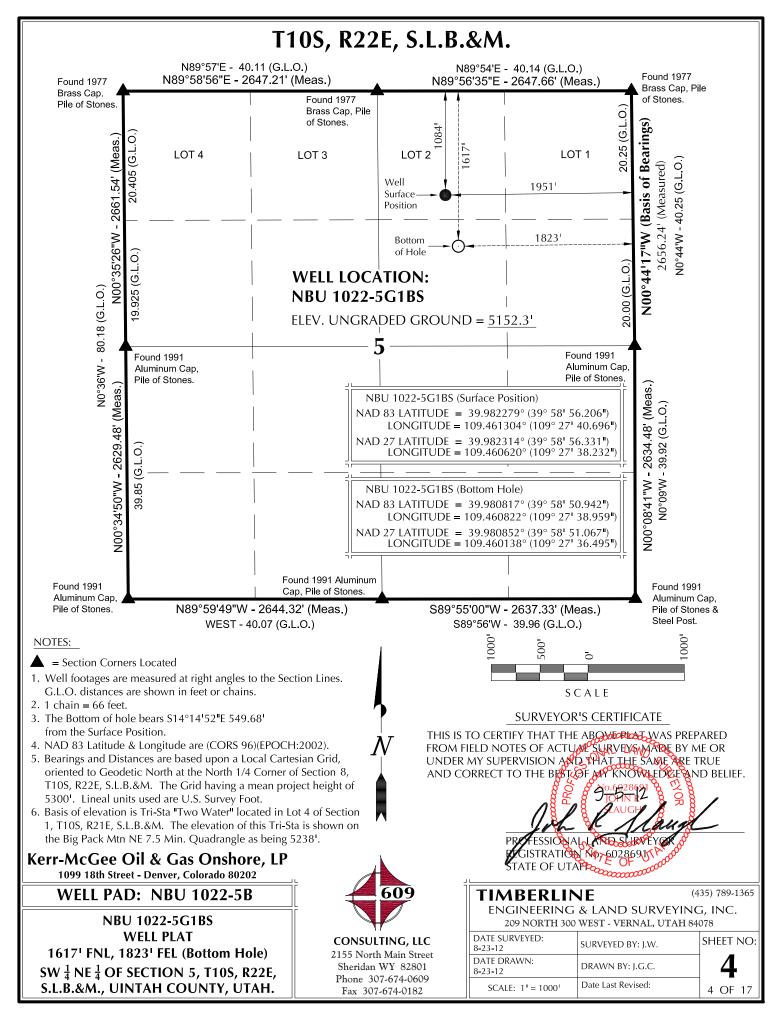
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IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

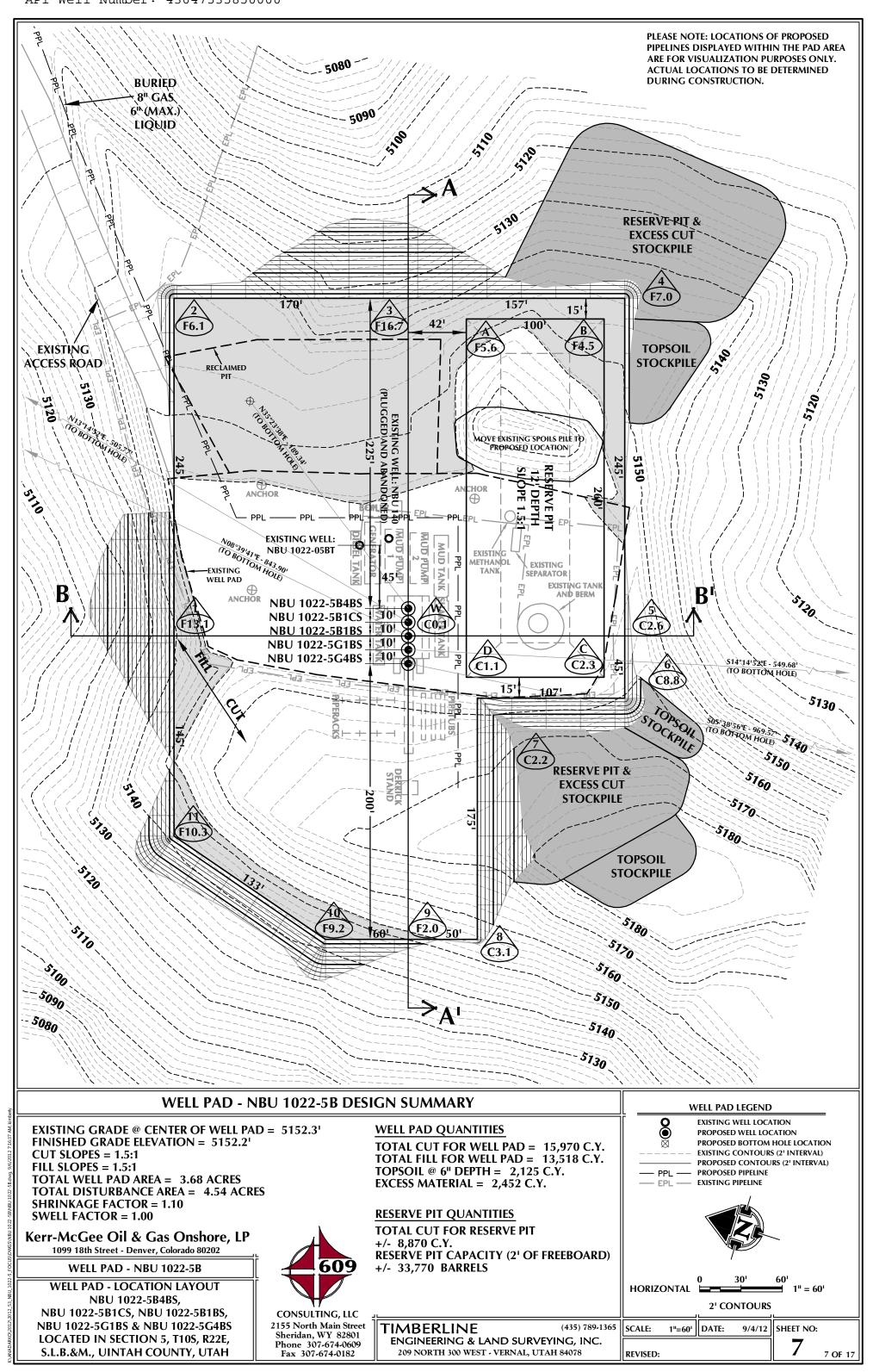
DRILLING ENGINEER:		DATE:	
	Nick Spence / John Tuckwiller / Brian Cocchiere / Tyler Elliott	· <u> </u>	
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young		

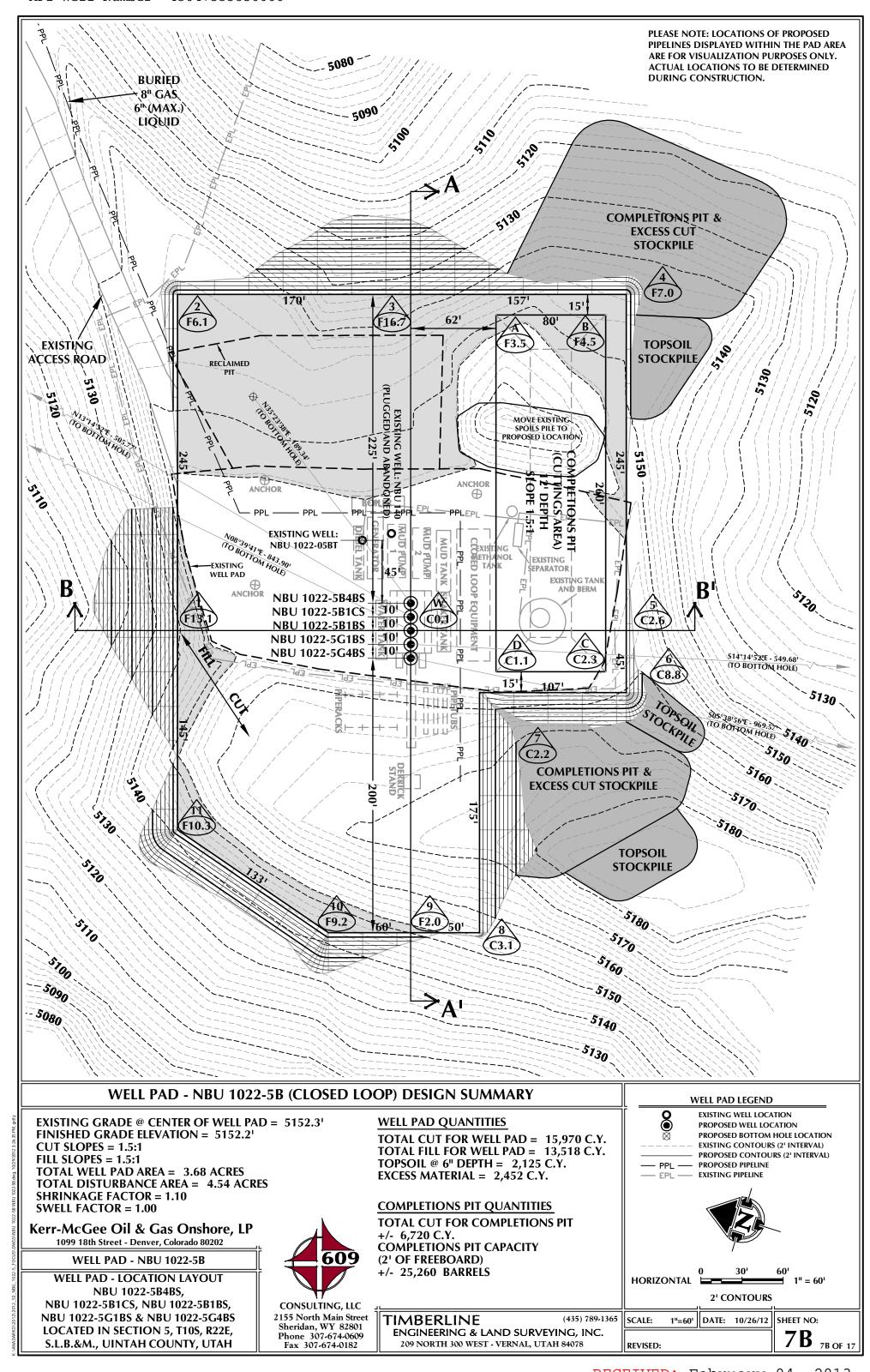
NBU 1022-5B Pad- Drilling Program Approved by Drilling- 010313.xlsx

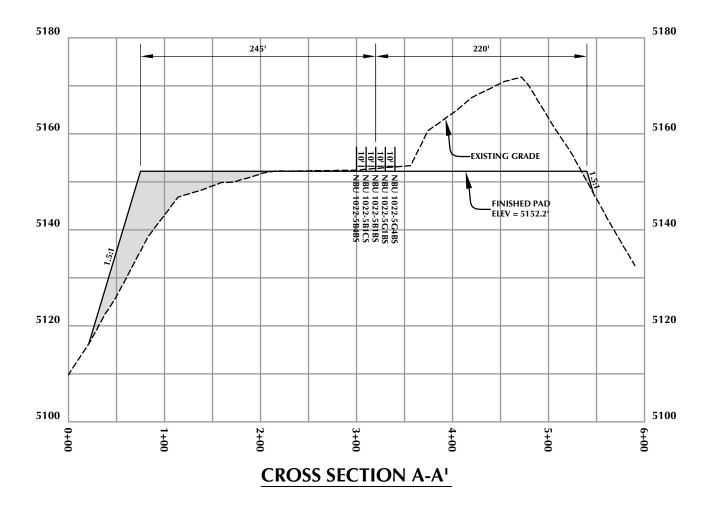
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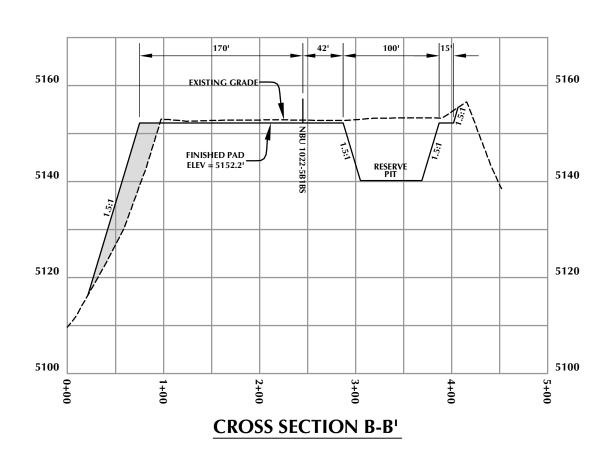


			SURFACE POS				BOTTOM HOLE						
WELL NAME	NA LATITUDE	AD83 LONGITU	IDE LATITUI	NAD27 DE LONGITUD	E FOOTAGES	LATIT	NAE TUDE	D83 LONGITUDE	NAI LATITUDE	LONGITUDE	FOOTAGES		
NBU	39°58'56.294	l" 109°27'40	328" 39°58'56.	419" 109°27'37.86	4" 1075' FNL	39°58'.	57.819"	109°27'38.919"	39°58'57.944"	109°27'36.456"	921' FNL		
1022-5B4BS NBU	39.982304° 39°58'56.265	109.461202 5" 109°27'40	2° 39.982339 451" 39°58'56		1923' FEL 7" 1078' FNL	39.982	727° 01.129"	109.460811° 109°27'38.962"	39.982762° 39°59'01.254"	109.460127° 109°27'36.498"	1811' FEL 586' FNL		
1022-5B1CS	39.982296°	109.461236	5° 39.982330)° 109.460552°	1932¹ FEL	39.983	647°	109.460823°	39.983682°	109.460138°	1810' FEL		
NBU 1022-5B1BS	39°58'56.235 39.982288°	5" 109°27'40 109.461270			0" 1081' FNL 1942' FEL	39°59'0 39.984	04.478" 577°	109°27'38.941" 109.460817°	39°59'04.603" 39.984612°	109°27'36.477" 109.460133°	247' FNL 1804' FEL		
NBU 1022-5G1BS	39°58'56.206 39.982279°		696" 39°58'56.	331" 109°27'38.23			50.942"	109.460817 109°27'38.959" 109.460822°	39°58'51.067" 39.980852°	109°27'36.495" 109.460138°	1617' FNL 1823' FEL		
NBU 1022-5G4BS	39°58'56.177 39.982271°		819" 39°58'56.	302" 109°27'38.35			46.644"	109°27'39.593" 109.460998°	39°58'46.769" 39.979658°	109°27'37.130" 109.460314°	2052' FNL 1878' FEL		
NBU 140	39°58'56.576 39.982382°	109°27'39.3 109.46104		⁷ 01" 109°27'37.29						,			
NBU 1022-05BT	39°58'56.762 39.982434°	109°27'39. 109.461083			6" 1028' FNL 1889' FEL								
				IVE COORDINATE					II .				
WELL NAME NBU	NORTH	EAST	WELL NAME NBU		NIDILI	NAME	NOR		NBU WELL NAM		EAST		
1022-5B4BS	154.3'	109.7'	1022-5B1CS	492.3 11	5.9 1022-	5B1BS	834	.3' 127.1'	1022-5G1B	s -532.8'	135.3'		
WELL NAME NBU	NORTH -964.9'	95.4'			1								
SCALE SC													
			onshore, L		75222°		40 h 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BASIS C THE NE S.L.B.& GLOBA	OF BEARINGS E	IS THE EAST LI N 5, T10S, R22 TAKEN FROM NG SATELLITE BEAR N00°44'	Ε,		
	8th Street - D L PAD -				609		 	MBERL	INIE	(4	35) 789-1365		
	PAD INT						11	ngineerin	IG & LAND	SURVEYING	G, INC.		
	NELLS - NBI			25:		-	DATI	209 NORTH 3 SURVEYED:	300 WEST - VEF	RNAL, UTAH 84			
NBU 1	1022-5B1CS	5, NBU 102	2-5B1BS,	III .	SULTING, LL North Main Stre		8-23	-12	SURVEYED E	BY: J.W.	SHEET NO:		
NRII 1	022-5G1BS	& NBU 10	22-5G4BS		idan WY 8280		DATI	DRAWN:	DRAWN BY:	166			
	TED 11				iuan w 1 0200	1	8-23	-12	Dio tivit bi.	J.G.C.	n		
LOCAT	TED IN SEC [®] &M., UINTA	TION 5, T1	OS, R22E,	Phor	e 307-674-060 307-674-0182	9	8-23- S	-12 CALE: 1" = 60'	Date Last Re		O 6 OF 17		





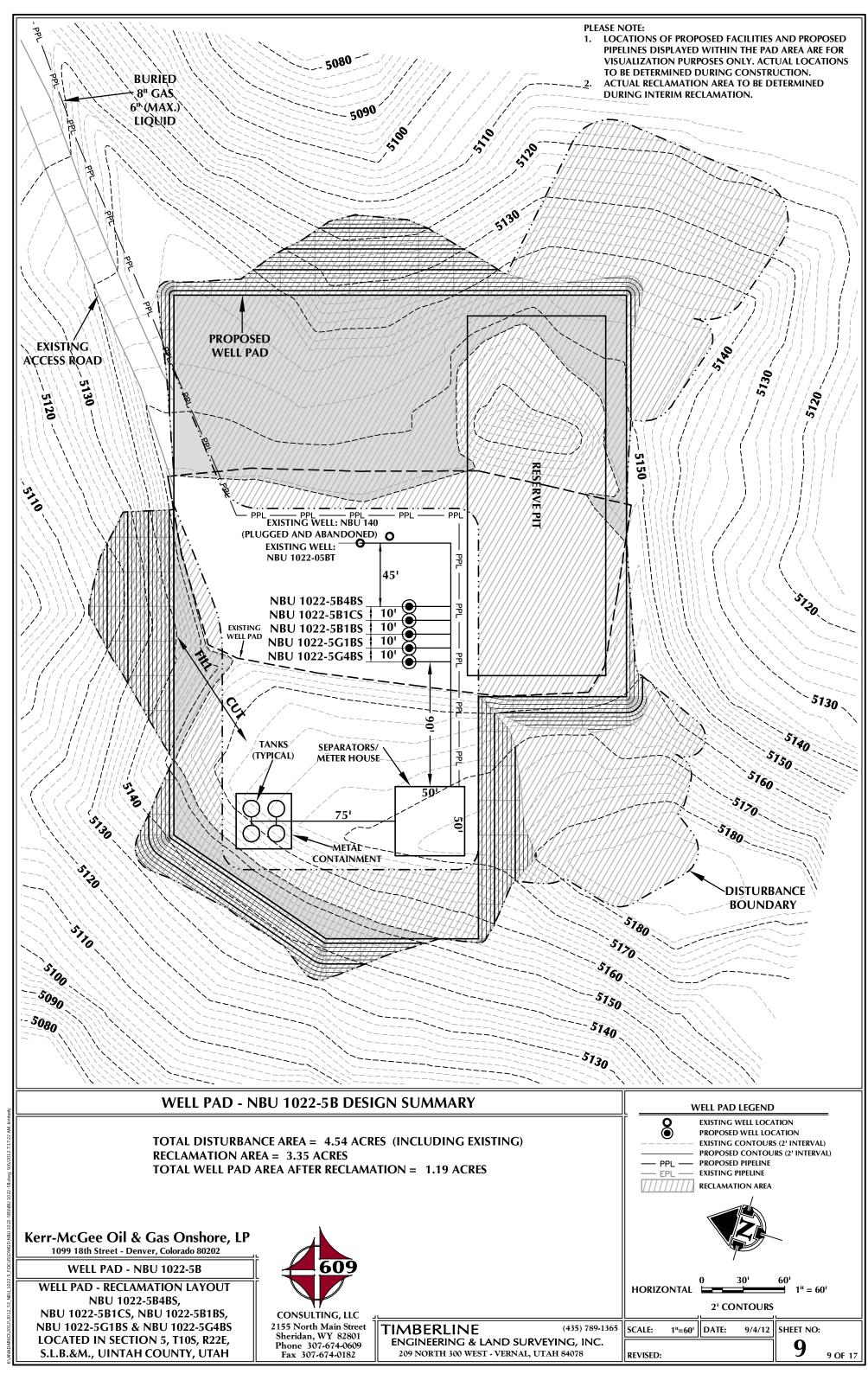




Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-5B





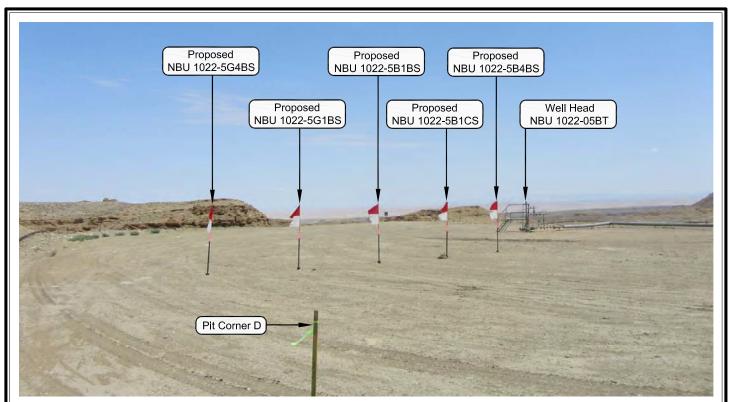


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE





PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-5B

LOCATION PHOTOS NBU 1022-5B4BS, NBU 1022-5B1CS, NBU 1022-5B1BS, NBU 1022-5G1BS & NBU 1022-5G4BS LOCATED IN SECTION 5, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street

Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

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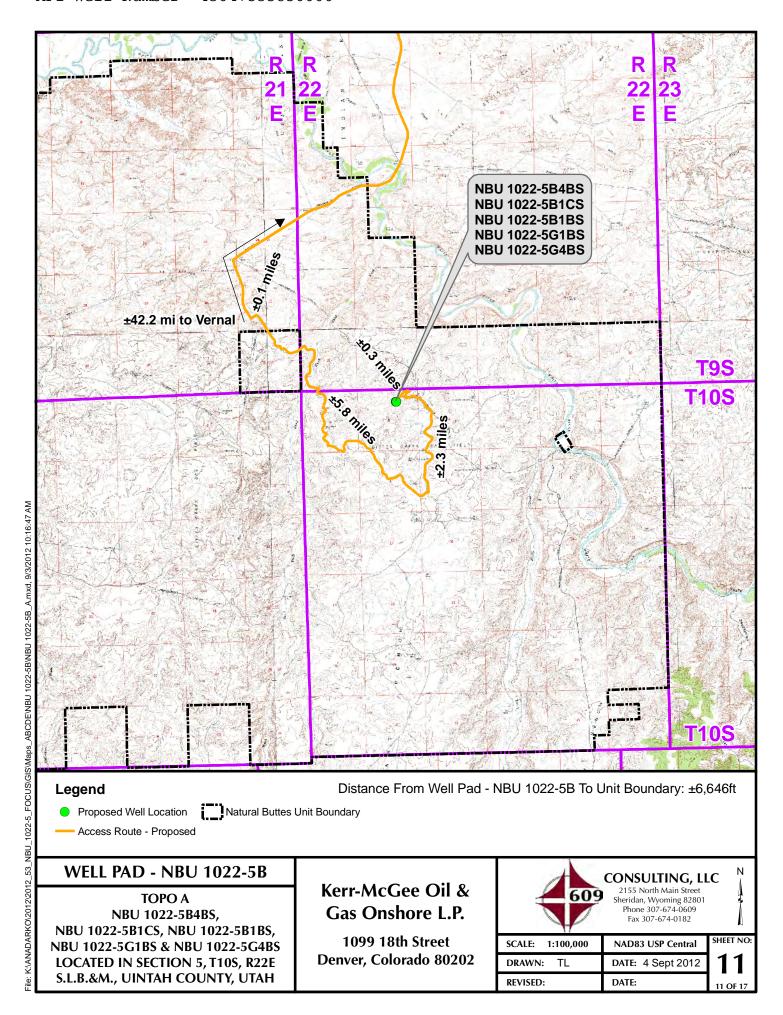
Date Last Revised:

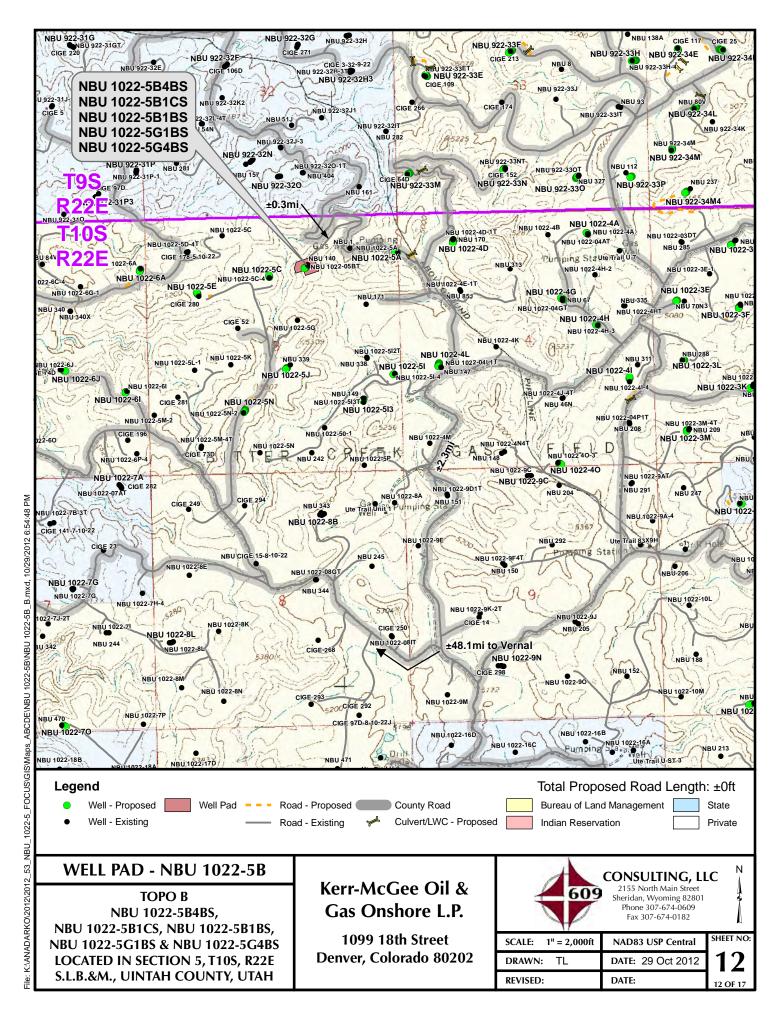
(435) 789-1365

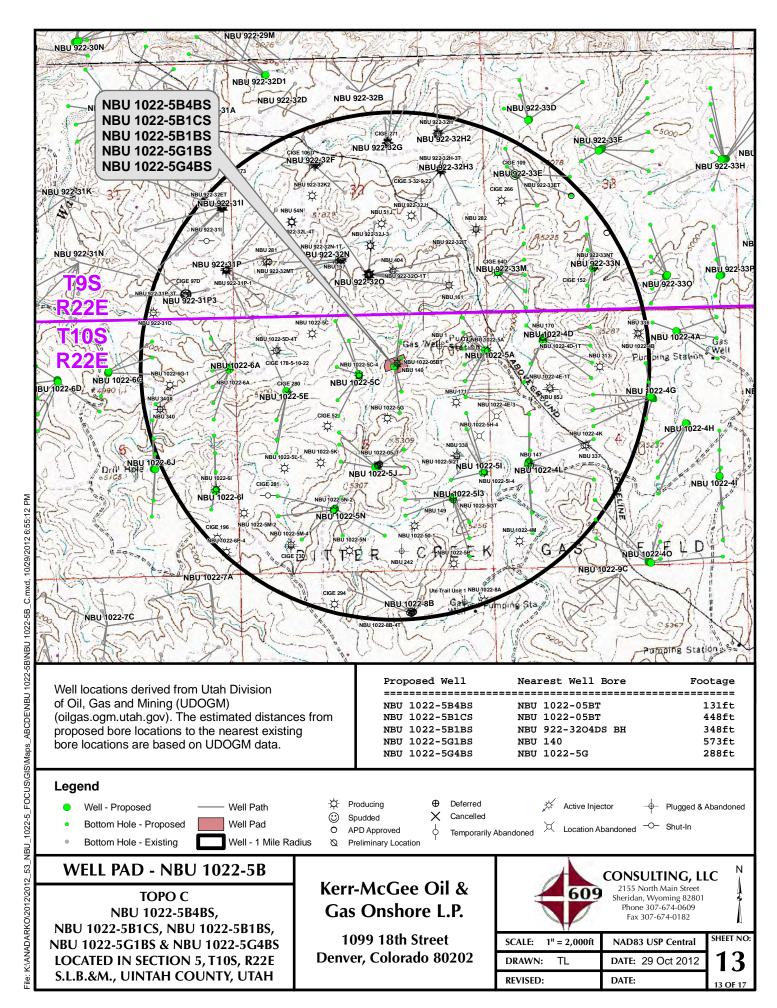
10 OF 17

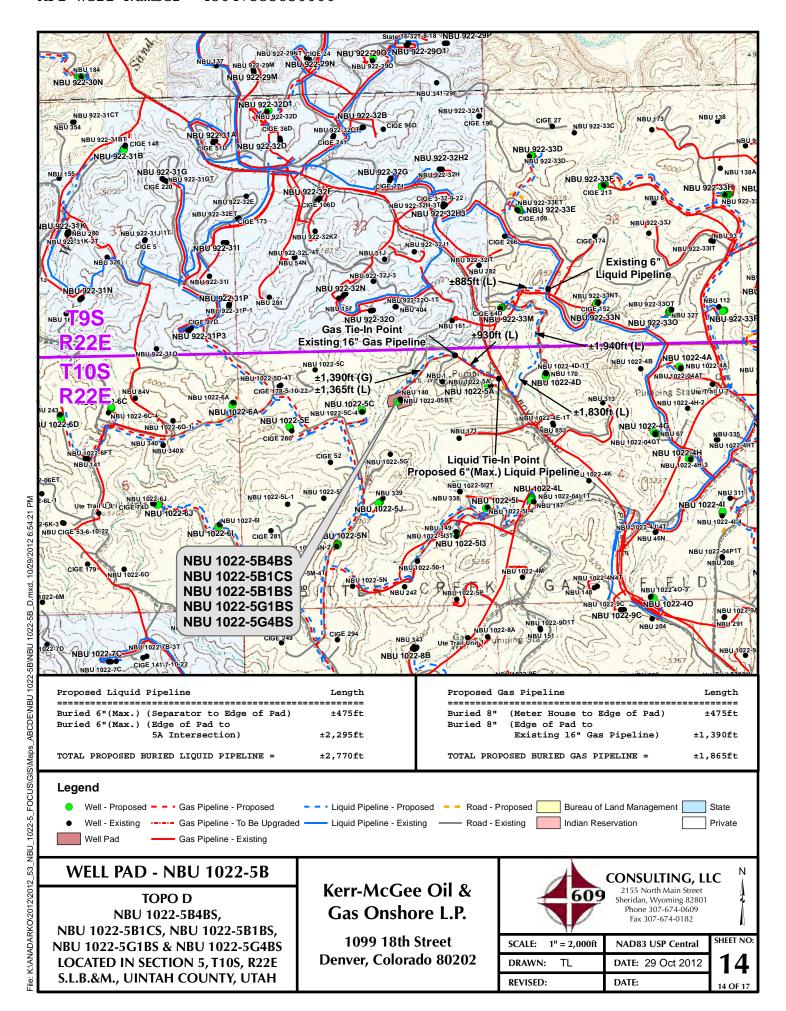
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

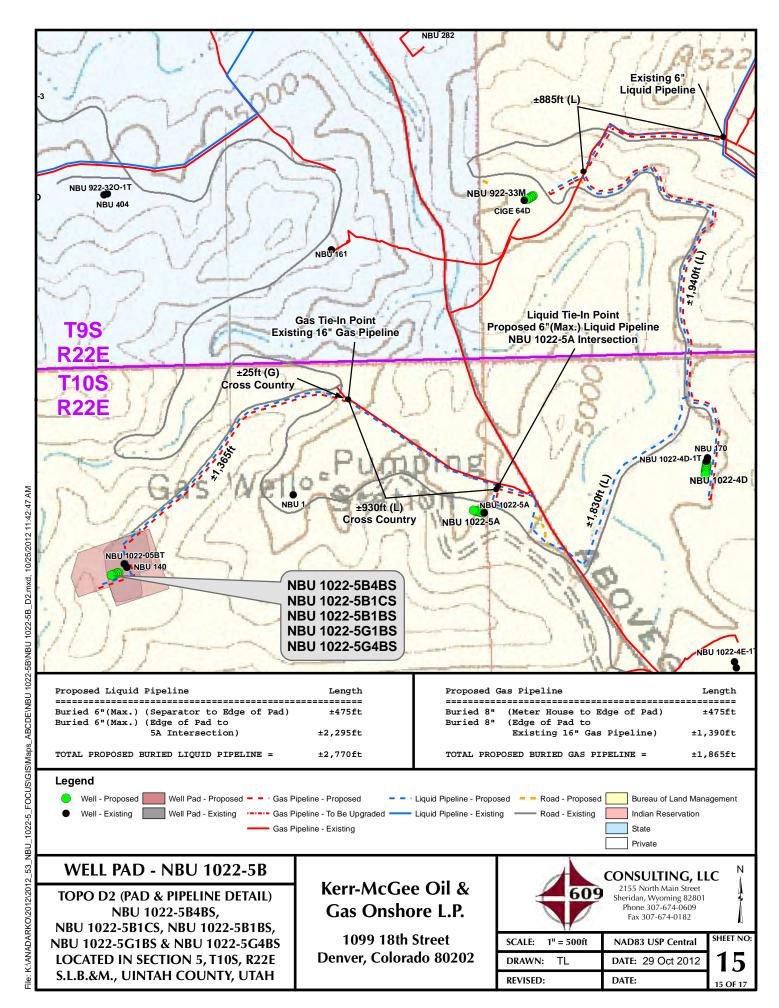
20711011111300	TO DOI: TERMINE, CIMIC,	0,0
DATE PHOTOS TAKEN: 8-23-12	PHOTOS TAKEN BY: J.W.	SHEET NO:
DATE DRAWN: 8-23-12	DRAWN BY: J.G.C.	10

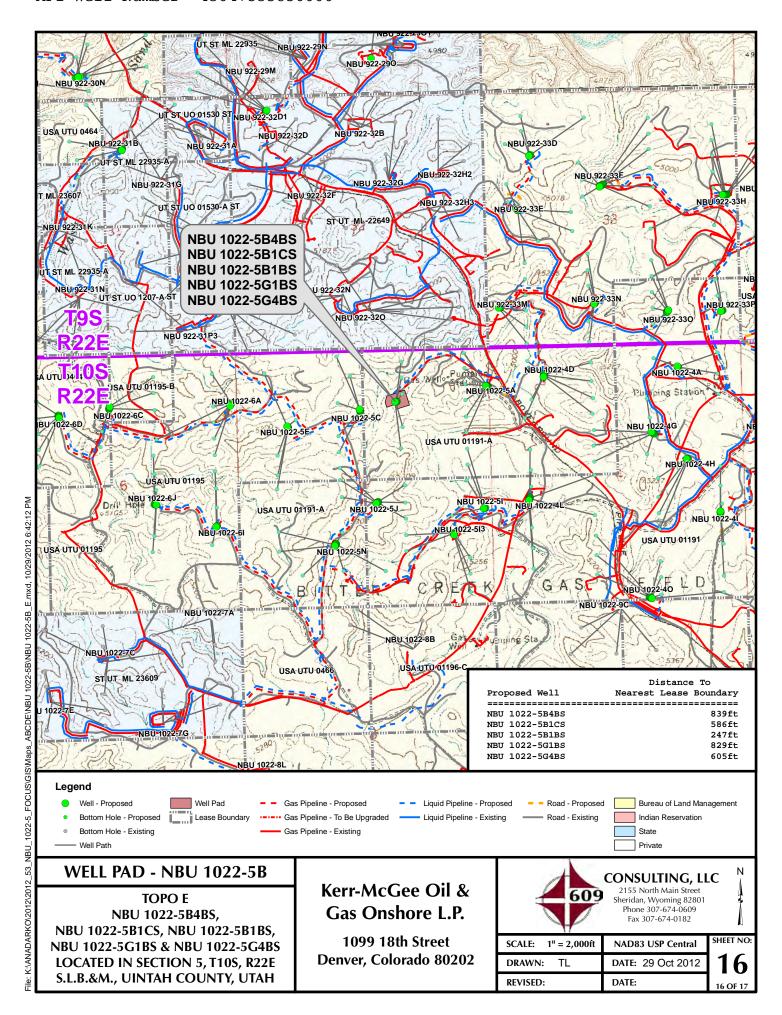












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 1022-5B WELLS - NBU 1022-5B4BS, NBU 1022-5B1CS, NBU 1022-5B1BS, NBU 1022-5G1BS & NBU 1022-5G4BS Section 5, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 5.8 miles to a third Class D County Road approximately 2.3 miles to a service road to the southwest. Exit left and proceed in a southwesterly direction along the service road approximately 0.3 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 50.7 miles in a southerly direction.

SHEET 17 OF 17

API Well Number: 43047750jec6:500040-UTM (feet), NAD27, Zone 12N

Scientific Drilling

Site: NBU 1022-5B PAD Well: NBU 1022-5G1BS

Wellbore: OH

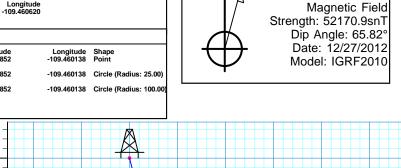
Design: PLAN #1 PERMIT

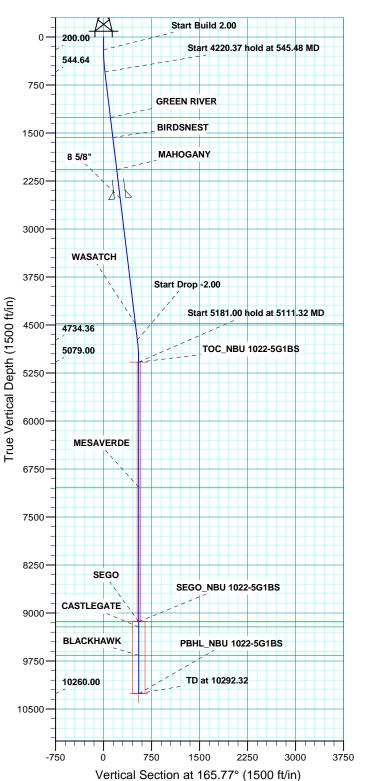


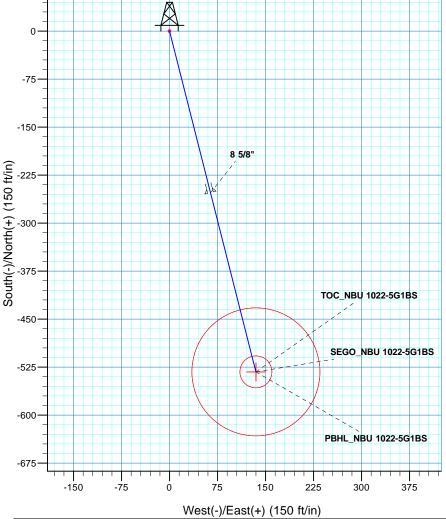




Azimuths to True North Magnetic North: 10.869







SECTION DETAILS												
MD In	c Azi TVD	+N/-S +E/-W	Dleg TFace	VSect								
0.00 0.0	0.00 0.00	0.00 0.00	0.00 0.00	0.00								
200.00 0.0	0.00 200.00	0.00 0.00	0.00 0.00	0.00								
545.48 6.9	1 165.77 544.64	-20.17 5.11	2.00 165.77	20.81								
4765.85 6.9	1 165.77 4734.36	-512.31 129.91	0.00 0.00	528.52								
5111.32 0.0	0.00 5079.00	-532.48 135.03	2.00 180.00	549.33 TOC NBU 1022-5G1BS								
10292.32 0.0	0 0.0010260.00	-532.48 135.03	0.00 0.00	549.33 PBHL_NBU 1022-5G1BS								

Plan: PLAN #1 PERMIT (NBU 1022-5G1BS/OH)

RECEIVED:

Created By: Gabe Kendall Date: 11:24, December 27 2012



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-5B PAD NBU 1022-5G1BS

OH

Plan: PLAN #1 PERMIT

Standard Planning Report

27 December, 2012





SDIPlanning Report



Database: EDM 5000.1 Single User Db Company: US ROCKIES REGION PLAI

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-5B PAD

 Well:
 NBU 1022-5G1BS

Wellbore: OH

Project:

Design: PLAN #1 PERMIT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-5G1BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED) GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Zone 12N (114 W to 108 W)

Mean Sea Level

Site NBU 1022-5B PAD, SECTION 5 T10S R22E

Northing: 14,523,336.64 usft Site Position: Latitude: 39.982339 From: Lat/Long Easting: 2,071,681.68 usft Longitude: -109.460518 **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.99 13.200 in

System Datum:

Well NBU 1022-5G1BS, 1084 FNL 1951 FEL

 Well Position
 +N/-S
 -9.11 ft
 Northing:
 14,523,327.04 usft
 Latitude:
 39.982314

 +E/-W
 -28.58 ft
 Easting:
 2,071,653.26 usft
 Longitude:
 -109.460620

Position Uncertainty0.00 ftWellhead Elevation:Ground Level:5,152.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 12/27/12 10.86 65.82 52,171

PLAN #1 PERMIT Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 165.77

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
545.48	6.91	165.77	544.64	-20.17	5.11	2.00	2.00	0.00	165.77	
4,765.85	6.91	165.77	4,734.36	-512.31	129.91	0.00	0.00	0.00	0.00	
5,111.32	0.00	0.00	5,079.00	-532.48	135.03	2.00	-2.00	0.00	180.00	TOC_NBU 1022-5G1
10,292.32	0.00	0.00	10,260.00	-532.48	135.03	0.00	0.00	0.00	0.00	PBHL_NBU 1022-5G



SDIPlanning Report



Database: Company: Project:

Site:

Well:

EDM 5000.1 Single User Db US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

NBU 1022-5B PAD NBU 1022-5G1BS

Wellbore: OH

Design: PLAN #1 PERMIT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-5G1BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED) GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

True

Design:	PLAN #1 PER	MIT							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00 Start Build 2.	0.00 0.00 0.00	0.00 0.00 0.00	0.00 100.00 200.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
300.00 400.00	2.00 4.00	165.77 165.77	299.98 399.84	-1.69 -6.76	0.43 1.72	1.75 6.98	2.00 2.00	2.00 2.00	0.00 0.00
500.00 545.48	6.00 6.91	165.77 165.77	499.45 544.64	-15.21 -20.17	3.86 5.11	15.69 20.81	2.00 2.00	2.00 2.00	0.00 0.00
	hold at 545.48 I								
600.00 700.00 800.00	6.91 6.91 6.91	165.77 165.77 165.77	598.77 698.04 797.31	-26.53 -38.19 -49.85	6.73 9.68 12.64	27.37 39.40 51.43	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
900.00 1,000.00 1,100.00 1,200.00 1,266.07	6.91 6.91 6.91 6.91	165.77 165.77 165.77 165.77 165.77	896.59 995.86 1,095.14 1,194.41 1,260.00	-61.51 -73.17 -84.83 -96.49 -104.20	15.60 18.55 21.51 24.47 26.42	63.46 75.49 87.52 99.55 107.49	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
GREEN RIVE	R								
1,300.00 1,400.00 1,500.00 1,578.34	6.91 6.91 6.91 6.91	165.77 165.77 165.77 165.77	1,293.68 1,392.96 1,492.23 1,570.00	-108.15 -119.81 -131.48 -140.61	27.43 30.38 33.34 35.66	111.58 123.61 135.64 145.06	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
BIRDSNEST									
1,600.00	6.91	165.77	1,591.50	-143.14	36.30	147.67	0.00	0.00	0.00
1,700.00 1,800.00 1,900.00 2,000.00 2,084.01 MAHOGANY	6.91 6.91 6.91 6.91 6.91	165.77 165.77 165.77 165.77 165.77	1,690.78 1,790.05 1,889.33 1,988.60 2,072.00	-154.80 -166.46 -178.12 -189.78 -199.58	39.25 42.21 45.17 48.12 50.61	159.70 171.73 183.76 195.79 205.89	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,100.00 2,200.00 2,300.00 2,400.00 2,500.00	6.91 6.91 6.91 6.91 6.91	165.77 165.77 165.77 165.77 165.77	2,087.87 2,187.15 2,286.42 2,385.69 2,484.97 2,522.00	-201.44 -213.10 -224.76 -236.43 -248.09 -252.44	51.08 54.04 57.00 59.95 62.91 64.01	207.82 219.85 231.88 243.91 255.94 260.43	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
8 5/8"	0.0.		_,000		0	200.10	0.00	0.00	0.00
2,600.00 2,700.00 2,800.00 2,900.00	6.91 6.91 6.91 6.91	165.77 165.77 165.77 165.77	2,584.24 2,683.52 2,782.79 2,882.06	-259.75 -271.41 -283.07 -294.73	65.87 68.82 71.78 74.74	267.97 280.00 292.03 304.06	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
3,000.00 3,100.00 3,200.00 3,300.00 3,400.00	6.91 6.91 6.91 6.91 6.91	165.77 165.77 165.77 165.77	2,981.34 3,080.61 3,179.88 3,279.16 3,378.43	-306.39 -318.05 -329.71 -341.37 -353.04	77.70 80.65 83.61 86.57 89.52	316.09 328.12 340.15 352.18 364.21	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
3,500.00 3,600.00 3,700.00 3,800.00 3,900.00	6.91 6.91 6.91 6.91	165.77 165.77 165.77 165.77 165.77	3,477.71 3,576.98 3,676.25 3,775.53 3,874.80	-364.70 -376.36 -388.02 -399.68 -411.34	92.48 95.44 98.39 101.35 104.31	376.24 388.27 400.30 412.33 424.36	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
4,000.00 4,100.00	6.91 6.91	165.77 165.77	3,974.07 4,073.35	-423.00 -434.66	107.27 110.22	436.39 448.42	0.00 0.00	0.00 0.00	0.00 0.00



SDI **Planning Report**



Database: Company: Project: UTAH - UTM (feet), NAD27, Zone 12N

EDM 5000.1 Single User Db US ROCKIES REGION PLANNING

NBU 1022-5B PAD Site: Well: NBU 1022-5G1BS

Wellbore: ОН

Design: PLAN #1 PERMIT Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 1022-5G1BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED) GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

True

esign:	PLAN #1 PER	IVII I							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	6.91	165.77	4,172.62	-446.32	113.18	460.45	0.00	0.00	0.00
4,300.00	6.91	165.77	4,271.90	-457.99	116.14	472.48	0.00	0.00	0.00
4,400.00	6.91	165.77	4,371.17	-469.65	119.09	484.51	0.00	0.00	0.00
4 500 00	6.91	165.77	4 470 44	404.24	100.05	496.54	0.00	0.00	0.00
4,500.00		165.77	4,470.44	-481.31	122.05				
4,508.62	6.91	165.77	4,479.00	-482.31	122.31	497.58	0.00	0.00	0.00
WASATCH									
4,600.00	6.91	165.77	4,569.72	-492.97	125.01	508.57	0.00	0.00	0.00
		165.77							
4,700.00	6.91		4,668.99	-504.63	127.96	520.60	0.00	0.00	0.00
4,765.85	6.91	165.77	4,734.36	-512.31	129.91	528.52	0.00	0.00	0.00
Start Drop -2	.00								
4,800.00	6.23	165.77	4,768.29	-516.10	130.87	532.43	2.00	-2.00	0.00
4,900.00	4.23	165.77	4,867.87	-524.92	133.11	541.54	2.00	-2.00	0.00
5,000.00	2.23	165.77	4,967.70	-530.38	134.49	547.17	2.00	-2.00	0.00
5,100.00	0.23	165.77	5,067.68	-532.45	135.02	549.31	2.00	-2.00	0.00
5,111.32	0.00	0.00	5,079.00	-532.48	135.03	549.33	2.00	-2.00	0.00
Start 5181.00	hold at 5111.32	MD - TOC_NB	U 1022-5G1BS						
F 000 00	0.00	0.00	E 107.00	E20 40	105.00	E40.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,167.68	-532.48	135.03	549.33	0.00	0.00	0.00
5,300.00	0.00	0.00	5,267.68	-532.48	135.03	549.33	0.00	0.00	0.00
5,400.00	0.00	0.00	5,367.68	-532.48	135.03	549.33	0.00	0.00	0.00
5,500.00	0.00	0.00	5,467.68	-532.48	135.03	549.33	0.00	0.00	0.00
5,600.00	0.00	0.00	5,567.68	-532.48	135.03	549.33	0.00	0.00	0.00
0,000.00	0.00	0.00	0,007.00			010.00		0.00	
5,700.00	0.00	0.00	5,667.68	-532.48	135.03	549.33	0.00	0.00	0.00
5,800.00	0.00	0.00	5,767.68	-532.48	135.03	549.33	0.00	0.00	0.00
5,900.00	0.00	0.00	5,867.68	-532.48	135.03	549.33	0.00	0.00	0.00
	0.00				135.03			0.00	
6,000.00		0.00	5,967.68	-532.48		549.33	0.00		0.00
6,100.00	0.00	0.00	6,067.68	-532.48	135.03	549.33	0.00	0.00	0.00
6,200.00	0.00	0.00	6,167.68	-532.48	135.03	549.33	0.00	0.00	0.00
6,300.00	0.00	0.00	6,267.68	-532.48	135.03	549.33	0.00	0.00	0.00
6,400.00	0.00	0.00	6,367.68	-532.48	135.03	549.33	0.00	0.00	0.00
6,500.00	0.00	0.00	6,467.68	-532.48	135.03	549.33	0.00	0.00	0.00
6,600.00	0.00	0.00	6,567.68	-532.48	135.03	549.33	0.00	0.00	0.00
6,700.00	0.00	0.00	6,667.68	-532.48	135.03	549.33	0.00	0.00	0.00
6,800.00	0.00	0.00	6,767.68	-532.48	135.03	549.33	0.00	0.00	0.00
6,900.00	0.00	0.00	6,867.68	-532.48	135.03	549.33	0.00	0.00	0.00
7,000.00	0.00	0.00	6,967.68	-532.48	135.03	549.33	0.00	0.00	0.00
7,066.32	0.00	0.00	7,034.00	-532.48	135.03	549.33	0.00	0.00	0.00
		0.00	.,551.55	55 <u>2</u> . 10	.55.55	5 10.00	0.00	0.00	0.00
MESAVERDE									
7,100.00	0.00	0.00	7,067.68	-532.48	135.03	549.33	0.00	0.00	0.00
7,200.00	0.00	0.00	7,167.68	-532.48	135.03	549.33	0.00	0.00	0.00
,									
7,300.00	0.00	0.00	7,267.68	-532.48	135.03	549.33	0.00	0.00	0.00
7,400.00	0.00	0.00	7,367.68	-532.48	135.03	549.33	0.00	0.00	0.00
7,500.00	0.00	0.00	7,467.68	-532.48	135.03	549.33	0.00	0.00	0.00
7 600 00	0.00	0.00	7 567 60	E22 40	125.02	E40.22	0.00	0.00	0.00
7,600.00	0.00	0.00	7,567.68	-532.48	135.03	549.33	0.00	0.00	0.00
7,700.00	0.00	0.00	7,667.68	-532.48	135.03	549.33	0.00	0.00	0.00
7,800.00	0.00	0.00	7,767.68	-532.48	135.03	549.33	0.00	0.00	0.00
7,900.00	0.00	0.00	7,867.68	-532.48	135.03	549.33	0.00	0.00	0.00
8,000.00	0.00	0.00	7,967.68	-532.48	135.03	549.33	0.00	0.00	0.00
8,100.00	0.00	0.00	8,067.68	-532.48	135.03	549.33	0.00	0.00	0.00
8,200.00	0.00	0.00	8,167.68	-532.48	135.03	549.33	0.00	0.00	0.00
8,300.00	0.00	0.00	8,267.68	-532.48	135.03	549.33	0.00	0.00	0.00
8,400.00	0.00	0.00	8,367.68	-532.48	135.03	549.33	0.00	0.00	0.00
8,500.00	0.00	0.00	8,467.68	-532.48	135.03	549.33	0.00	0.00	0.00
8,600.00	0.00	0.00	8,567.68	-532.48	135.03	549.33	0.00	0.00	0.00



SDIPlanning Report



Database: Company: Project: EDM 5000.1 Single User Db US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-5B PAD

 Well:
 NBU 1022-5G1BS

ОН

Wellbore:

Design: PLAN #1 PERMIT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-5G1BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED) GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

True

nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,700.00 8,800.00 8,900.00 9,000.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	8,667.68 8,767.68 8,867.68 8,967.68	-532.48 -532.48 -532.48 -532.48	135.03 135.03 135.03 135.03	549.33 549.33 549.33 549.33	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
9,100.00 9,168.32	0.00 0.00	0.00 0.00	9,067.68 9,136.00	-532.48 -532.48	135.03 135.03	549.33 549.33	0.00 0.00	0.00 0.00	0.00 0.00
SEGO - SEG	O_NBU 1022-5G	1BS							
9,200.00 9,250.32	0.00 0.00	0.00 0.00	9,167.68 9,218.00	-532.48 -532.48	135.03 135.03	549.33 549.33	0.00 0.00	0.00 0.00	0.00 0.00
CASTLEGAT	Έ								
9,300.00	0.00	0.00	9,267.68	-532.48	135.03	549.33	0.00	0.00	0.00
9,400.00 9,500.00 9,600.00 9,692.32	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	9,367.68 9,467.68 9,567.68 9.660.00	-532.48 -532.48 -532.48 -532.48	135.03 135.03 135.03 135.03	549.33 549.33 549.33 549.33	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
BLACKHAW	K		,						
9,700.00	0.00	0.00	9,667.68	-532.48	135.03	549.33	0.00	0.00	0.00
9,800.00 9,900.00 10,000.00 10,100.00 10,200.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	9,767.68 9,867.68 9,967.68 10,067.68 10,167.68	-532.48 -532.48 -532.48 -532.48 -532.48	135.03 135.03 135.03 135.03 135.03	549.33 549.33 549.33 549.33	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
10,292.32	0.00	0.00	10,260.00	-532.48	135.03	549.33	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TOC_NBU 1022-5G1BS - plan hits target cent - Point	0.00 er	0.00	5,079.00	-532.48	135.03	14,522,796.98	2,071,797.46	39.980852	-109.460138
SEGO_NBU 1022-5G1E - plan hits target cent - Circle (radius 25.00)		0.00	9,136.00	-532.48	135.03	14,522,796.98	2,071,797.46	39.980852	-109.460138
PBHL_NBU 1022-5G1B - plan hits target cent - Circle (radius 100.0		0.00	10,260.00	-532.48	135.03	14,522,796.98	2,071,797.46	39.980852	-109.460138

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,537.30	2,522.00	5/8"	8.625	11.000



SDI Planning Report



Database: Company: Project: EDM 5000.1 Single User Db US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-5B PAD

 Well:
 NBU 1022-5G1BS

Wellbore: OH

Design: PLAN #1 PERMIT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-5G1BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED) GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

True

nations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,266.07	1,260.00	GREEN RIVER			
	1,578.34	1,570.00	BIRDSNEST			
	2,084.01	2,072.00	MAHOGANY			
	4,508.62	4,479.00	WASATCH			
	7,066.32	7,034.00	MESAVERDE			
	9,168.32	9,136.00	SEGO			
	9,250.32	9,218.00	CASTLEGATE			
	9,692.32	9,660.00	BLACKHAWK			

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
200.00	200.00	0.00	0.00	Start Build 2.00
545.48	544.64	-20.17	5.11	Start 4220.37 hold at 545.48 MD
4,765.85	4,734.36	-512.31	129.91	Start Drop -2.00
5,111.32	5,079.00	-532.48	135.03	Start 5181.00 hold at 5111.32 MD
10,292.32	10,260.00	-532.48	135.03	TD at 10292.32

NBU 1022-5B1BS/ 1022-5B1CS/ 1022-5B4BS NBU 1022-5G1BS/ 1022-5G4BS

Surface Use Plan of Operations 1 of 6

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-5B PAD

<u>API #</u>	I	NBU 1022-5B1BS		
	Surface:	1081 FNL / 1942 FEL	NWNE	Lot 2
	BHL:	247 FNL / 1804 FEL	NWNE	Lot 2
<u>API #</u>	ļ	NBU 1022-5B1CS		
	Surface:	1078 FNL / 1932 FEL	NWNE	Lot 2
	BHL:	586 FNL / 1810 FEL	NWNE	Lot 2
<u>API #</u>	I	NBU 1022-5B4BS		
	Surface:	1075 FNL / 1923 FEL	NWNE	Lot 2
	BHL:	921 FNL / 1811 FEL	NWNE	Lot 2
<u>API #</u>	1	NBU 1022-5G1BS		
	Surface:	1084 FNL / 1951 FEL	NWNE	Lot 2
	BHL:	1617 FNL / 1823 FEL	SWNE	
<u>API #</u>	1	NBU 1022-5G4BS		
	Surface:	1087 FNL / 1961 FEL	NWNE	Lot 2
	BHL:	2052 FNL / 1878 FEL	SWNE	

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on October 10-11, 2012. Present were:

- · Dave Gordon, Lynn Dehner, Aaron Roe and Melissa Wardle BLM;
- · Mitch Batty Timberline Engineering & Land Surveying, Inc.;
- · Jacob Dunham 609 Consulting, LLC.;
- · Alan Rabinoff ICF International;
- · Gina Becker, Tony Kazeck, Casey McKee, Charles Chase and Randy Townley- Kerr-McGee

A. Existing Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Topo B for existing roads.

B. New or Reconstructed Access Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

The following segments are "on-lease"

No new access road is proposed. Please refer to Topo Map B.

Location of Existing Wells: C.

Please refer to Topo C for exiting wells.

Location of Existing and/or Proposed Facilities:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

This pad will expand the existing pad for the NBU 1022-05BT and the NBU 140. The NBU 1022-05BT is a producing gas well and the NBU 140 is a Plugged and Abandoned well according to Utah Division of Oil, Gas and Mining (UDOGM) records on December 11, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The total gas gathering pipeline distance from the meter to the tie in point is $\pm 1,865$ ° and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±475' (0.1 miles) Section 5 T10S R22E (NW/4 NE/4) On-lease UTU01191-A, BLM surface, New 8" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±1,390' (0.3 miles) Section 5 T10S R22E (NE/4) On-lease UTU01191-A, BLM surface, New 8" buried gas gathering pipeline from the edge of the pad to tie-in to the the existing 16" gas pipeline to the northeast in the NE/4 NE/4. 25 feet of this pipeline segment will travel cross county. Please refer to Exhibit A. Line 11 and 10.

LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 4,600$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±475' (0.1 miles) – Section 5 T10S R22E (NW/4 NE/4) – On-lease UTU01191-A, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer

NBU 1022-5B1BS/ 1022-5B1CS/ 1022-5B4BS NBU 1022-5G1BS/ 1022-5G4BS Surface Use Plan of Operations 3 of 6

to Topo D2 - Pad and Pipeline Detail.

- ±2,295' (0.4 miles) Section 5 T10S R22E (NE/4) On-lease UTU01191-A, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to tie-in to the 1022-5A intersection. 955 feet of this pipeline segment will travel cross county. Please refer to Topo D2 and Exhibit B, Line 14 and Line 13.
- ±1,830' (0.3 miles) Section 4 T10S R22E (NW/4) On-lease UTU01191-A, BLM surface, New 6" buried liquid gathering pipeline from the 1022-5A intersection, around the northeast corner of the well pad to tie-in to the proposed 6" liquid pipeline to the northeast at the NBU 1022-4D intersection. 370 feet of this pipeline segment will travel cross county. This pipeline will be used concurrently with the NBU 1022-5A Pad. Please refer to Exhibit B, Line 11 and Line 10.

Pipeline Gathering Construction

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

The Anadarko Completions Transportation System (ACTS) information:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Exhibit C for ACTS Lines

E. Location and Types of Water Supply:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Water will be hauled to location over the roads marked on Maps A and B.

F. Construction Materials:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

G. Methods for Handling Waste:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Materials Management

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

RECEIVED: February 04, 2013

NBU 1022-5B1BS/ 1022-5B1CS/ 1022-5B4BS

Surface Use Plan of Operations 4 of 6

J. Plans for Surface Reclamation:

NBU 1022-5G1BS/ 1022-5G4BS

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Interim Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Measures Common to Interim and Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Weed Control

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Monitoring

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

L. Other Information:

Cultural and Paleontological Resources

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Resource Reports:

A Class I literature survey report was completed on October 31, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 12-311.

A paleontological reconnaissance survey was completed October 24-26, 2012 by SWCA Environmental Consultants. For additional details please refer to report UT12-14314-194.

NBU 1022-5B1BS/ 1022-5B1CS/ 1022-5B4BS NBU 1022-5G1BS/ 1022-5G4BS Surface Use Plan of Operations 5 of 6

Biological field survey was completed October 18-November 9, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-859.

Proposed Action Annual Emissions Tables:

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 1022-5B1BS/ 1022-5B1CS/ 1022-5B4BS NBU 1022-5G1BS/ 1022-5G4BS Surface Use Plan of Operations 6 of 6

M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Senior Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T Recker

December 17, 2012

Date

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

February 26, 2013

Memorandum

To: Assistant Field Office Manager Minerals,

Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2013 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2013 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 1022-5A PAD

43-047-53530 NBU 1022-5A1BS Sec 05 T10S R22E 0808 FNL 0014 FEL BHL Sec 05 T10S R22E 0100 FNL 0497 FEL 43-047-53531 NBU 1022-5A4BS Sec 05 T10S R22E 0794 FNL 0062 FEL BHL Sec 05 T10S R22E 0756 FNL 0492 FEL 43-047-53532 NBU 1022-5A1CS Sec 05 T10S R22E 0805 FNL 0024 FEL BHL Sec 05 T10S R22E 0420 FNL 0492 FEL 43-047-53589 NBU 1022-5H1CS Sec 05 T10S R22E 0802 FNL 0033 FEL BHL Sec 05 T10S R22E 1761 FNL 0492 FEL 43-047-53590 NBU 1022-5H1BS Sec 05 T10S R22E 0799 FNL 0043 FEL BHL Sec 05 T10S R22E 1426 FNL 0492 FEL 43-047-53591 NBU 1022-5A4CS Sec 05 T10S R22E 0797 FNL 0053 FEL BHL Sec 05 T10S R22E 1091 FNL 0492 FEL NBU 1022-5J PAD 43-047-53563 NBU 1022-5J1BS Sec 05 T10S R22E 2136 FSL 2386 FEL BHL Sec 05 T10S R22E 2464 FSL 1817 FEL 43-047-53564 NBU 1022-5F4CS Sec 05 T10S R22E 2115 FSL 2408 FEL BHL Sec 05 T10S R22E 2439 FNL 2143 FWL 43-047-53598 NBU 1022-5K1CS Sec 05 T10S R22E 2102 FSL 2423 FEL BHL Sec 05 T10S R22E 2246 FSL 2160 FWL 43-047-53599 NBU 1022-5K1BS Sec 05 T10S R22E 2109 FSL 2415 FEL BHL Sec 05 T10S R22E 2604 FSL 2144 FWL

RECEIVED: February 26, 2013

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 1022-5J PAD 43-047-53600 NBU 1022-5J4BS Sec 05 T10S R22E 2122 FSL 2400 FEL BHL Sec 05 T10S R22E 1765 FSL 1816 FEL 43-047-53601 NBU 1022-5J1CS Sec 05 T10S R22E 2129 FSL 2393 FEL BHL Sec 05 T10S R22E 2101 FSL 1816 FEL NBU 1022-5I3 PAD 43-047-53565 NBU 1022-5P4CS Sec 05 T10S R22E 1410 FSL 0824 FEL BHL Sec 05 T10S R22E 0205 FSL 0499 FEL 43-047-53566 NBU 1022-5P4BS Sec 05 T10S R22E 1420 FSL 0821 FEL BHL Sec 05 T10S R22E 0586 FSL 0494 FEL 43-047-53567 NBU 1022-5P1CS Sec 05 T10S R22E 1429 FSL 0818 FEL BHL Sec 05 T10S R22E 0921 FSL 0494 FEL 43-047-53568 NBU 1022-501BS Sec 05 T10S R22E 1439 FSL 0815 FEL BHL Sec 05 T10S R22E 1093 FSL 1818 FEL 43-047-53569 NBU 1022-5J4CS Sec 05 T10S R22E 1448 FSL 0812 FEL BHL Sec 05 T10S R22E 1429 FSL 1817 FEL NBU 1022-5I PAD 43-047-53570 NBU 1022-513AS Sec 05 T10S R22E 1944 FSL 0185 FEL BHL Sec 05 T10S R22E 1809 FSL 0852 FEL 43-047-53571 NBU 1022-511BS Sec 05 T10S R22E 1947 FSL 0175 FEL BHL Sec 05 T10S R22E 2543 FSL 0517 FEL 43-047-53572 NBU 1022-5H4CS Sec 05 T10S R22E 1950 FSL 0166 FEL BHL Sec 05 T10S R22E 2432 FNL 0493 FEL 43-047-53573 NBU 1022-5H4BS Sec 05 T10S R22E 1954 FSL 0156 FEL BHL Sec 05 T10S R22E 2097 FNL 0492 FEL NBU 1022-5E PAD 43-047-53575 NBU 1022-5E4CS Sec 05 T10S R22E 1568 FNL 1089 FWL BHL Sec 05 T10S R22E 2555 FNL 0846 FWL 43-047-53576 NBU 1022-5E4BS Sec 05 T10S R22E 1559 FNL 1085 FWL BHL Sec 05 T10S R22E 2150 FNL 0854 FWL 43-047-53577 NBU 1022-5E1AS Sec 05 T10S R22E 1550 FNL 1080 FWL BHL Sec 05 T10S R22E 1410 FNL 1260 FWL 43-047-53578 NBU 1022-5D2DS Sec 05 T10S R22E 1542 FNL 1075 FWL BHL Sec 05 T10S R22E 0435 FNL 0628 FWL NBU 1022-5C Pad 43-047-53579 NBU 1022-5F4BS Sec 05 T10S R22E 1261 FNL 2602 FWL BHL Sec 05 T10S R22E 2102 FNL 2143 FWL 43-047-53580 NBU 1022-5F1CS Sec 05 T10S R22E 1251 FNL 2600 FWL BHL Sec 05 T10S R22E 1766 FNL 2142 FWL 43-047-53581 NBU 1022-5C4BS Sec 05 T10S R22E 1241 FNL 2597 FWL BHL Sec 05 T10S R22E 1081 FNL 2140 FWL 43-047-53582 NBU 1022-5C1DS Sec 05 T10S R22E 1222 FNL 2593 FWL BHL Sec 05 T10S R22E 0532 FNL 2413 FWL 43-047-53583 NBU 1022-5C1BS Sec 05 T10S R22E 1232 FNL 2595 FWL BHL Sec 05 T10S R22E 0115 FNL 2150 FWL Page 2

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 1022-5B PAD 43-047-53584 NBU 1022-5G4BS Sec 05 T10S R22E 1087 FNL 1961 FEL BHL Sec 05 T10S R22E 2052 FNL 1878 FEL 43-047-53585 NBU 1022-5G1BS Sec 05 T10S R22E 1084 FNL 1951 FEL BHL Sec 05 T10S R22E 1617 FNL 1823 FEL 43-047-53586 NBU 1022-5B4BS Sec 05 T10S R22E 1075 FNL 1923 FEL BHL Sec 05 T10S R22E 0921 FNL 1811 FEL 43-047-53587 NBU 1022-5B1CS Sec 05 T10S R22E 1078 FNL 1932 FEL BHL Sec 05 T10S R22E 0586 FNL 1810 FEL 43-047-53588 NBU 1022-5B1BS Sec 05 T10S R22E 1081 FNL 1942 FEL BHL Sec 05 T10S R22E 0247 FNL 1804 FEL NBU 1022-5N PAD 43-047-53592 NBU 1022-503AS Sec 05 T10S R22E 1269 FSL 2004 FWL BHL Sec 05 T10S R22E 0680 FSL 2260 FEL 43-047-53593 NBU 1022-5N1CS Sec 05 T10S R22E 1260 FSL 1999 FWL BHL Sec 05 T10S R22E 0701 FSL 2151 FWL 43-047-53594 NBU 1022-5M4AS Sec 05 T10S R22E 1235 FSL 1982 FWL BHL Sec 05 T10S R22E 0638 FSL 1295 FWL 43-047-53595 NBU 1022-5M1BS Sec 05 T10S R22E 1243 FSL 1988 FWL BHL Sec 05 T10S R22E 1141 FSL 0825 FWL 43-047-53596 NBU 1022-5L4CS Sec 05 T10S R22E 1252 FSL 1993 FWL BHL Sec 05 T10S R22E 1557 FSL 0826 FWL 43-047-53597 NBU 1022-5K4CS Sec 05 T10S R22E 1277 FSL 2009 FWL BHL Sec 05 T10S R22E 1508 FSL 2148 FWL NBU 921-21B PAD 43-047-53604 NBU 921-21A1BS Sec 21 T09S R21E 0651 FNL 2056 FEL BHL Sec 21 T09S R21E 0085 FNL 0495 FEL 43-047-53608 NBU 921-21B4CS Sec 21 T09S R21E 0650 FNL 2086 FEL BHL Sec 21 T09S R21E 1243 FNL 1822 FEL 43-047-53609 NBU 921-21B1BS Sec 21 T09S R21E 0650 FNL 2066 FEL BHL Sec 21 T09S R21E 0249 FNL 1822 FEL 43-047-53622 NBU 921-21B4BS Sec 21 T09S R21E 0650 FNL 2076 FEL BHL Sec 21 T09S R21E 0911 FNL 1822 FEL NBU 921-21C PAD 43-047-53605 NBU 921-21C4BS Sec 21 T09S R21E 0978 FNL 1707 FWL BHL Sec 21 T09S R21E 0745 FNL 2153 FWL 43-047-53606 NBU 921-21C1CS Sec 21 T09S R21E 0975 FNL 1698 FWL BHL Sec 21 T09S R21E 0414 FNL 2152 FWL 43-047-53607 NBU 921-21C1BS Sec 21 T09S R21E 0972 FNL 1688 FWL BHL Sec 21 T09S R21E 0084 FNL 2152 FWL 43-047-53613 NBU 921-21D4CS Sec 21 T09S R21E 0969 FNL 1679 FWL BHL Sec 21 T09S R21E 1240 FNL 0826 FWL Page 3

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-21D PAD 43-047-53610 NBU 921-21D1CS Sec 21 T09S R21E 0243 FNL 1065 FWL BHL Sec 21 T09S R21E 0578 FNL 0826 FWL 43-047-53611 NBU 921-21D1BS Sec 21 T09S R21E 0240 FNL 1056 FWL BHL Sec 21 T09S R21E 0248 FNL 0826 FWL 43-047-53623 NBU 921-21D4BS Sec 21 T09S R21E 0246 FNL 1075 FWL BHL Sec 21 T09S R21E 0929 FNL 0826 FWL NBU 921-21G PAD 43-047-53624 NBU 921-21H1CS Sec 21 T09S R21E 1766 FNL 1748 FEL BHL Sec 21 T09S R21E 1743 FNL 0495 FEL 43-047-53625 NBU 921-21G4BS Sec 21 T09S R21E 1760 FNL 1768 FEL BHL Sec 21 T09S R21E 2237 FNL 1823 FEL 43-047-53626 NBU 921-21G1CS Sec 21 T09S R21E 1757 FNL 1777 FEL BHL Sec 21 T09S R21E 1906 FNL 1822 FEL 43-047-53627 NBU 921-21G1BS Sec 21 T09S R21E 1754 FNL 1787 FEL BHL Sec 21 T09S R21E 1574 FNL 1822 FEL NBU 921-21F PAD 43-047-53628 NBU 921-21F4BS Sec 21 T09S R21E 1613 FNL 2171 FWL BHL Sec 21 T09S R21E 2070 FNL 2154 FWL 43-047-53629 NBU 921-21F1CS Sec 21 T09S R21E 1612 FNL 2161 FWL BHL Sec 21 T09S R21E 1739 FNL 2153 FWL 43-047-53630 NBU 921-21F1BS Sec 21 T09S R21E 1615 FNL 2181 FWL BHL Sec 21 T09S R21E 1407 FNL 2153 FWL 43-047-53631 NBU 921-21C4CS Sec 21 T09S R21E 1616 FNL 2191 FWL BHL Sec 21 T09S R21E 1076 FNL 2153 FWL



Digitally signed by Michael L. Coulthard DN: cn=Michael L. Coulthard, o=Bureau of Land Date: 2013.02.26 08:11:16 -07'00'

bcc: File - Natural Buttes Unit Division of Oil Gas and Mining Central Files Agr. Sec. Chron Fluid Chron

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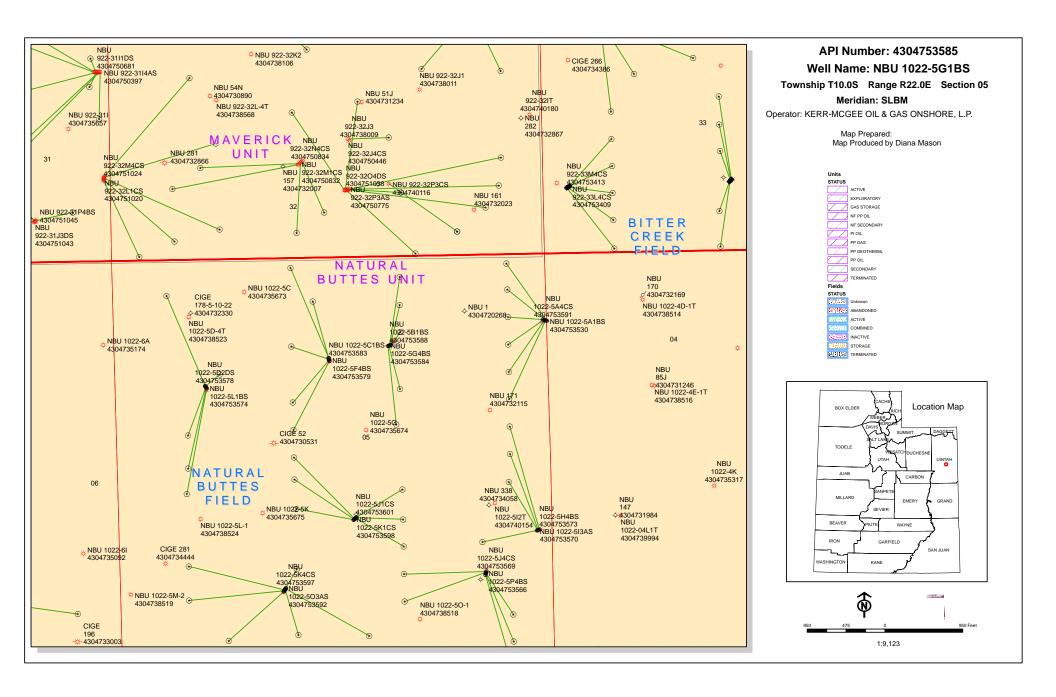
Page 4

API NUMBER	WELL NAME	SURFACE LOCATION				
43-047-53530	NBU 1022-5A1BS	Sec 05 T10S R22E 0808 FNL 0014 FEL				
43-047-53531	NBU 1022-5A4BS	Sec 05 T10S R22E 0794 FNL 0062 FEL				
43-047-53532	NBU 1022-5A1CS	Sec 05 T10S R22E 0805 FNL 0024 FEL				
43-047-53563	NBU 1022-5J1BS	Sec 05 T10S R22E 2136 FSL 2386 FEL				
43-047-53564	NBU 1022-5F4CS	Sec 05 T10S R22E 2115 FSL 2408 FEL				
43-047-53565	NBU 1022-5P4CS	Sec 05 T10S R22E 1410 FSL 0824 FEL				
43-047-53566	NBU 1022-5P4BS	Sec 05 T10S R22E 1420 FSL 0821 FEL				
43-047-53567	NBU 1022-5P1CS	Sec 05 T10S R22E 1429 FSL 0818 FEL				
43-047-53568	NBU 1022-501BS	Sec 05 T10S R22E 1439 FSL 0815 FEL				
43-047-53569	NBU 1022-5J4CS	Sec 05 T10S R22E 1448 FSL 0812 FEL				
43-047-53570	NBU 1022-5I3AS	Sec 05 T10S R22E 1944 FSL 0185 FEL				
43-047-53571	NBU 1022-5I1BS	Sec 05 T10S R22E 1947 FSL 0175 FEL				
43-047-53572	NBU 1022-5H4CS	Sec 05 T10S R22E 1950 FSL 0166 FEL				
43-047-53573	NBU 1022-5H4BS	Sec 05 T10S R22E 1954 FSL 0156 FEL				
43-047-53575	NBU 1022-5E4CS	Sec 05 T10S R22E 1568 FNL 1089 FWL				
43-047-53576	NBU 1022-5E4BS	Sec 05 T10S R22E 1559 FNL 1085 FWL				
43-047-53577	NBU 1022-5E1AS	Sec 05 T10S R22E 1550 FNL 1080 FWL				
43-047-53578	NBU 1022-5D2DS	Sec 05 T10S R22E 1542 FNL 1075 FWL				
43-047-53579	NBU 1022-5F4BS	Sec 05 T10S R22E 1261 FNL 2602 FWL				
43-047-53580	NBU 1022-5F1CS	Sec 05 T10S R22E 1251 FNL 2600 FWL				
43-047-53581	NBU 1022-5C4BS	Sec 05 T10S R22E 1241 FNL 2597 FWL				
43-047-53582	NBU 1022-5C1DS	Sec 05 T10S R22E 1222 FNL 2593 FWL				
43-047-53583	NBU 1022-5C1BS	Sec 05 T10S R22E 1232 FNL 2595 FWL				
43-047-53584	NBU 1022-5G4BS	Sec 05 T10S R22E 1087 FNL 1961 FEL				
43-047-53585	NBU 1022-5G1BS	Sec 05 T10S R22E 1084 FNL 1951 FEL				
43-047-53586	NBU 1022-5B4BS	Sec 05 T10S R22E 1075 FNL 1923 FEL				
43-047-53587	NBU 1022-5B1CS	Sec 05 T10S R22E 1078 FNL 1932 FEL				
43-047-53588	NBU 1022-5B1BS	Sec 05 T10S R22E 1081 FNL 1942 FEL				
43-047-53589	NBU 1022-5H1CS	Sec 05 T10S R22E 0802 FNL 0033 FEL				
43-047-53590	NBU 1022-5H1BS	Sec 05 T10S R22E 0799 FNL 0043 FEL				
43-047-53591	NBU 1022-5A4CS	Sec 05 T10S R22E 0797 FNL 0053 FEL				
43-047-53592	NBU 1022-503AS	Sec 05 T10S R22E 1269 FSL 2004 FWL				
43-047-53593	NBU 1022-5N1CS	Sec 05 T10S R22E 1260 FSL 1999 FWL				
43-047-53594	NBU 1022-5M4AS	Sec 05 T10S R22E 1235 FSL 1982 FWL				
43-047-53595	NBU 1022-5M1BS	Sec 05 T10S R22E 1243 FSL 1988 FWL				
43-047-53596	NBU 1022-5L4CS	Sec 05 T10S R22E 1252 FSL 1993 FWL				
43-047-53597	NBU 1022-5K4CS	Sec 05 T10S R22E 1277 FSL 2009 FWL				
43-047-53598	NBU 1022-5K1CS	Sec 05 T10S R22E 2102 FSL 2423 FEL				
43-047-53599	NBU 1022-5K1BS	Sec 05 T10S R22E 2109 FSL 2415 FEL				
43-047-53600	NBU 1022-5J4BS	Sec 05 T10S R22E 2122 FSL 2400 FEL				
43-047-53601	NBU 1022-5J1CS	Sec 05 T10S R22E 2129 FSL 2393 FEL				
43-047-53604	NBU 921-21A1BS	Sec 21 T09S R21E 0651 FNL 2056 FEL				
43-047-53605	NBU 921-21C4BS	Sec 21 T09S R21E 0978 FNL 1707 FWL				
43-047-53606	NBU 921-21C1CS	Sec 21 T09S R21E 0975 FNL 1698 FWL				
43-047-53607	NBU 921-21C1BS	Sec 21 T09S R21E 0972 FNL 1688 FWL				

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API NUMBER	WELL NAME	SURFACE LOCATION
43-047-53608	NBU 921-21B4CS	Sec 21 T09S R21E 0650 FNL 2086 FEL
43-047-53609	NBU 921-21B1BS	Sec 21 T09S R21E 0650 FNL 2066 FEL
43-047-53610	NBU 921-21D1CS	Sec 21 T09S R21E 0243 FNL 1065 FWL
43-047-53611	NBU 921-21D1BS	Sec 21 T09S R21E 0240 FNL 1056 FWL
43-047-53613	NBU 921-21D4CS	Sec 21 T09S R21E 0969 FNL 1679 FWL
43-047-53622	NBU 921-21B4BS	Sec 21 T09S R21E 0650 FNL 2076 FEL
43-047-53623	NBU 921-21D4BS	Sec 21 T09S R21E 0246 FNL 1075 FWL
43-047-53624	NBU 921-21H1CS	Sec 21 T09S R21E 1766 FNL 1748 FEL
43-047-53625	NBU 921-21G4BS	Sec 21 T09S R21E 1760 FNL 1768 FEL
43-047-53626	NBU 921-21G1CS	Sec 21 T09S R21E 1757 FNL 1777 FEL
43-047-53627	NBU 921-21G1BS	Sec 21 T09S R21E 1754 FNL 1787 FEL
43-047-53628	NBU 921-21F4BS	Sec 21 T09S R21E 1613 FNL 2171 FWL
43-047-53629	NBU 921-21F1CS	Sec 21 T09S R21E 1612 FNL 2161 FWL
43-047-53630	NBU 921-21F1BS	Sec 21 T09S R21E 1615 FNL 2181 FWL
43-047-53631	NBU 921-21C4CS	Sec 21 T09S R21E 1616 FNL 2191 FWL

2 OF 2 2/25/2013



API Well Number: 43047535850000

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 2/6/2013 API NO. ASSIGNED: 43047535850000

WELL NAME: NBU 1022-5G1BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6086

CONTACT: Gina Becker

PROPOSED LOCATION: NWNE 05 100S 220E **Permit Tech Review:**

> **SURFACE: 1084 FNL 1951 FEL Engineering Review:**

> **BOTTOM:** 1617 FNL 1823 FEL Geology Review:

COUNTY: UINTAH

LATITUDE: 39.98225 LONGITUDE: -109.46125 UTM SURF EASTINGS: 631384.00 NORTHINGS: 4426921.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-01191-A PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit**

Board Cause No: Cause 173-14 Water Permit: 43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: Suspends General Siting Fee Surface Agreement

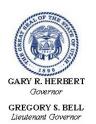
✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-5G1BS API Well Number: 43047535850000 Lease Number: UTU-01191-A

Surface Owner: FEDERAL Approval Date: 3/12/2013

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

RECEIVED

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

Lease Serial No. JAN 0 8 2013 UTU01191A APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allottee or Tribe Name

		<u> </u>	
1a. Type of Work: DRILL REENTER		7. If Unit or CA Agreement UTU63047A	, Name and No.
		8. Lease Name and Well No).
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ O	ther Single Zone Multiple Zone	NBU 1022-5G1BS	
2. Name of Operator Contact	GINA T BECKER	9. API Well No.	
KERR-MCGEE OIL & GAS ONSHOREDail: GINA.E	BECKER@ANADARKO.COM	43 047 535	85
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Explo	pratory
P.O. BOX 173779 DENVER, CO 80202-3779	Ph: 720-929-6086 Fx: 720-929-7086	NATURAL BUTTES	
4. Location of Well (Report location clearly and in accord	lance with any State requirements.*)	11. Sec., T., R., M., or Blk.	and Survey or Area
At surface NWNE Lot 2 1084FNL 19	51FEL 39.982279 N Lat, 109.461304 W Lon	Sec 5 T10S R22E M	er SLB
At proposed prod. zone SWNE 1617FNL 1823FEL	. 39.980817 N Lat, 109.460822 W Lon		
14. Distance in miles and direction from nearest town or post	office*	12. County or Parish	13. State
APPROXIMATELY 51 MILES SOUTHEAST OF	VERNAL, UTAH	UINTÄH	UT
15. Distance from proposed location to nearest property or	16. No. of Acres in Lease	17. Spacing Unit dedicated	to this well
lease line, ft. (Also to nearest drig. unit line, if any) 829	1363.20		
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on	file
completed, applied for, on this lease, ft. 573	10292 MD	WYB000291	
	10260 TVD	i i	_
21. Elevations (Show whether DF, KB, RT, GL, etc. 5152 GL	22. Approximate date work will start 06/01/2012	23. Estimated duratio	EIVED
	24. Attachments	JUN :	2 0 2013
The following, completed in accordance with the requirements of	of Onshore Oil and Gas Order No. 1, shall be attached to	this form: DIV OF OU	GAS & MINING
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Of 	Item 20 above).	ns unless covered by an existin	g bond on file (see
25. Signature	Name (Printed/Typed)		Date
(Electronic Submission)	GINA T BECKÉR Ph: 720-929-6086		01/03/2013
REGULATORY ANALYST II			
Approved by (Signature)	Name (Printed/Typed)	a 45	FUN 1 3 2013
As Brusha	Jerry Kenczl	Ka	2014 2 2013
Ausistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFIC	E	
Application approval does not warrant or certify the applicant ho	lolds legal or equitable title to those rights in the subject le	ase which would entitle the apr	licant to conduct
operations thereon. Conditions of approval, if any, are attached.		ITIONS OF APPROVA	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212,	make it a crime for any person knowingly and willfully to	make to any department or ag	ency of the United

Additional Operator Remarks (see next page)

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Electronic Submission #176087 verified by the BLM Well Information System For KERR-MCGEE OIL & GAS ONSHORE, sent to the Vernal Committed to AFMSS for processing by ROBIN R. HANSEN on 01/14/2013 ()

NOTICE OF APPROVAL





UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE**

VERNAL, UT 84078

(435) 781-4400

LOT 2, Sec. 5, T10S, R22E



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

KERR MCGEE OIL & GAS ONSHORE

170 South 500 East

NBU 1022-5G1BS

43-047-53585

Location: Lease No:

UTU-01191A

Agreement:

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	_	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 8 Well: NBU 1022-5G1BS

6/3/2013

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
 work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
 mitigation may be necessary for the discovered paleontologic material before construction can
 continue.
- Mitigation measures can be found in Appendix B, Table B-2, of the GNB ROD (BLM 2012b) under the following sections of the table:
 - o Air Quality
 - o Soils
 - o Vegetation: Sclerocactus wetlandicus
 - Wildlife: Colorado River Fish

Where populations or individuals of Sclerocactus wetlandicus are located within 300 feet of the proposed edge of project ROWs, the following actions will be taken to minimize impacts:

- Silt fencing will be used to protect cacti that are within 300 feet and downslope or downwind of surface disturbance. Fencing is intended to prevent sedimentation or dust deposition and will be evaluated for effectiveness by a qualified botanist.
- A qualified botanist will be on site to monitor surface-disturbing activities when cacti are within 300 feet of any surface disturbance.
- Dust abatement (consisting of water only) will occur during construction where plants are closer than 300 feet from surface-disturbing activities.
- Cacti within 300 feet of proposed surface disturbance will be flagged immediately prior to surface-disturbing activities and flags will be removed immediately after surface-disturbing activities are completed. Leaving cacti flagged for as short a time as possible will minimize drawing attention to the cacti location and reduce potential for theft.
- Pipelines will be sited to maximize distance from adjacent cacti locations.
- Project personnel associated with construction activities will be instructed to drive at a speed limit of 15 miles per hour on unpaved roads and remain in existing roadway ROWs at all times.

For permanent surface pipelines, KMG will adhere to existing cacti survey/buffer guidelines of 300 feet, or amended guidelines if developed by the BLM and USFWS. In areas where avoidance by 300 feet is not feasible and populations or individuals of *Sclerocactus wetlandicus* are within 50 feet of proposed project components, the following actions will be taken to minimize impacts:

Page 3 of 8 Well: NBU 1022-5G1BS 6/3/2013

- o Prior to construction, flag individual cactus. Once pipe installation is complete, remove the flagging.
- o Prior to construction, install protective fencing around the cacti if they are down gradient of the surface pipe. Once pipe installation is complete, remove the protective fencing.
- o A qualified botanist will be present during construction to monitor surface line installation.

The following considerations are required for those wells where KMG deems completion fluid recycling is appropriate based on new well density and topography:

- Temporary lines associated with recycling of completion water will be sited in existing ROWs. The pressure in the lines is less than 50 pounds per square inch and the lines are constructed of rigid aluminum; therefore, virtually no movement will occur during operation.
- o If surface water completion lines are placed within the footprint of a road disturbance where vegetation does not grow, *Sclerocactus wetlandicus* surveys will not be necessary.
- o A qualified botanist will survey a 50-foot-wide corridor along roads where temporary lines are planned to ensure *Sclerocactus wetlandicus* is not present.
- o If cacti are present within the 50-foot-wide survey corridor and avoidance is necessary (to ensure the line is more than 50 feet away from identified cactus), the new alignment will, if possible, be such that the cacti are topographically higher than the re-aligned line so a potential spill from the line will not impact the identified cacti.
- o If it is not possible to re-align the surface lines to avoid individuals or populations of the *Sclerocactus wetlandicus* that are within 50 feet of surface disturbance, the following actions will be taken to minimize impacts:
- o Prior to construction, KMG will flag individual cacti. Once pipe installation is complete, remove the flagging.
- Prior to construction, KMG will install protective fencing around the cacti if they are down gradient of the surface pipe. Once pipe installation is complete, remove the protective fencing.
- A qualified botanist will be present during construction to monitor surface line installation.

Avoidance of cactus by 300 feet will take priority in the expansion of pads within the cactus core conservation areas. When the 300-foot buffer cannot be avoided in pad expansion, KMG will notify the USFWS and work with the BLM to determine pad expansion that places a priority on avoiding cactus impacts.

KMG will follow existing ROWs and/or roads in constructing new buried pipelines within the cactus core conservation areas. For instance, where a new buried pipeline is unable to follow an existing ROW and/or road and exceeds 600 feet in length, KMG will work with the USFWS and the BLM to determine a route that places a priority on avoiding cactus impacts.

Maintenance activities on pipelines within cactus core conservation areas will avoid impacts to cactus, to the extent possible.

- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established

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6/3/2013

- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an
 integrated pest management program is applicable, coordination has been undertaken with the
 state and local management program (if existing). A copy of the pest management plan will be
 submitted for each project.
- A pesticide use permit (PUP) will be obtained for the project, if applicable.
- Bird exclusion netting will be installed over reserve pits containing water that are left open for more than 30 days to reduce possibility of exposure to hazardous chemicals (BLM 2012b).
- KMG will install bird-excluding devises that prevent the perching and entry of migratory birds on or into its new fired vessel exhaust stacks (BLM 2012b).
- Tree removal within pinyon-juniper habitat will occur outside of the nesting season for migratory birds (approximately 4/1 to 7/31 (BLM 2012b).
- Damage to livestock and livestock facilities would be reported as quickly as possible to the BLM and affected livestock operators. Operators would develop and employ prevention measures to avoid damaging fences, gates, and cattleguards, including upgrading cattleguard gate widths and load-bearing requirements and fencing all open pits and cellars.
- If partial or complete removal of a fence cannot be avoided, the fence would be braced and tied off per the BLM guidance. Where the fence is crossed by a road, the fence would be braced and a cattleguard and gate installed per BLM guidance.
- On well pads 1022-6C, 1022-6D, 1022-5A, and 1022-5B: Construction and development activities will be prohibited from 3/1 through 8/15, pending the results of a preconstruction nest occupancy survey (BLM 2012b; BLM 2008a).

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DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Cement for the 4.5 inch casing shall be brought up to a minimum of 200 feet above the surface casing shoe.
- A CBL shall be run from TD to TOC in the Production Casing.
- Variances shall be granted as requested in the APD under Section 9 of the Drilling Program.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
 encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
 Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each

Page 6 of 8 Well: NBU 1022-5G1BS 6/3/2013

encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well by CD (compact disc).
 This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 7 of 8 Well: NBU 1022-5G1BS 6/3/2013

OPERATING REQUIREMENT REMINDERS:

 All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
 notified when it is placed in a producing status. Such notification will be by written communication
 and must be received in this office by not later than the fifth business day following the date on
 which the well is placed on production. The notification shall provide, as a minimum, the following
 informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - o Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid,

Page 8 of 8 Well: NBU 1022-5G1BS

6/3/2013

and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

 All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
 Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
 future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
 BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
 hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
 be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
 lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
 suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
 obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 46153 API Well Number: 43047535850000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR		FORM 9	
ι	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A			
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-5G1BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047535850000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1084 FNL 1951 FEL			COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNE Section: (HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 22.0E Mer	idian: S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION		
	ACIDIZE	ALTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME	
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION	
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK	
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
Date of Spud: 12/19/2013	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
12/19/2013	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL	
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION	
Report Date.		SITA STATUS EXTENSION		
	WILDCAT WELL DETERMINATION	□ OTHER	OTHER:	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Spud well 12/19/2013 @ 13:30. Drill 24" conductor hole to 40', run 14" X .250 wall conductor pipe, cement with 81 sacks ready mix. Anticipated surface spud date and surface casing cement 01/03/2014. Oil, Gas and Mining FOR RECORD ONLY December 31, 2013				
NAME (DI EASE DRINT)	PHONE NUME	BER TITLE		
NAME (PLEASE PRINT) Doreen Green	435 781-9758	Regulatory Analyst II		
SIGNATURE N/A		DATE 12/23/2013		

Sundry Number: 49528 API Well Number: 43047535850000

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly de reenter plugged wells, or to drill horizont n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-5G1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047535850000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 1NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1084 FNL 1951 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 22.0E Meridi	an: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
_	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT			
Report Date: 4/2/2014	WATER SHUTOFF L	☐ SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly show all or Quarter 1 of 2014. Well Dr		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 02, 2014
NAME (PLEASE PRINT) Kay E. Kelly	PHONE NUMBE 720 929 6582	R TITLE Regulatory Analyst	
SIGNATURE		DATE	
N/A		4/2/2014	

Sundry Number: 52410 API Well Number: 43047535850000

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	oposals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.	leepen existing wells below Ital laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-5G1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047535850000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 1NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1084 FNL 1951 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNE Section: (HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 22.0E Merid	ian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
6/24/2014	WILDCAT WELL DETERMINATION	OTHER	OTHER:
40 DECORUDE DRODOCED OD			<u>'</u>
	COMPLETED OPERATIONS. Clearly show all Or Quarter 2 of 2014. Well dr		Accepted by the Utah Division of Oil, Gas and Mining FORITE FORD ONLY
NAME (PLEASE PRINT) Ila Beale	PHONE NUMBE 720 929-6408	R TITLE Staff Reg. Specialist	
SIGNATURE N/A		DATE 6/24/2014	

BLM - Vernal Field Office - Notification Form

Submitted By CORY SIMS Phone Number 435-828-0985 Well Name/Number NBU 1022-5G1BS Qtr/Qtr NW/NE Section 5 Township 10S Range 22E Lease Serial Number UTU-01191A API Number 43-047-53585
<u>Spud Notice</u> – Spud is the initial spudding of the well, not drilling out below a casing string.
Date/Time AM PM
Casing – Please report time casing run starts, not cementing times. Surface Casing Intermediate Casing Production Casing Liner Other
Date/Time <u>8/1/14</u> <u>12:45</u> AM ☐ PM ⊠
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other
Date/Time AM
RemarksTIME IS ESTIMATED

BLM - Vernal Field Office - Notification Form

Operator KERR MCGEE OIL AND GAS Rig Name/# SST 57 Submitted By STUART NEILSON Phone Number 435-828-0985 Well Name/Number NBU 1022-5G1BS Qtr/Qtr NW/NE Section 5 Township 10S Range 22E Lease Serial Number UTU-01191A API Number 43-047-53585
<u>Spud Notice</u> – Spud is the initial spudding of the well, not drilling out below a casing string.
Date/Time <u>1/12/14</u> <u>15:00</u> AM ☐ PM ⊠
Casing – Please report time casing run starts, not cementing times. Surface Casing Intermediate Casing Production Casing Liner Other
Date/Time AM PM
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other
Date/Time <u>7/26/14</u> <u>11:00</u> AM ☐ PM ⊠
Remarks TIME IS ESTIMATED

Sundry Number: 55381 API Well Number: 43047535850000

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-5G1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047535850000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	PH h Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 110/ATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1084 FNL 1951 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 22.0E Meridian	: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	NATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
9/11/2014		OTHER	OTHER:
40 DECORUDE DRODOCED OD			,
	completed operations. Clearly show all peed to 10,307 ft. in Quarter 3 of	_	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 12, 2014
NAME (PLEASE PRINT) Kay E. Kelly	PHONE NUMBER 720 929 6582	TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 9/11/2014	

Sundry Number: 58953 API Well Number: 43047535850000

						_
	STATE OF UTAH				FORM	9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING				5.LEASE DES	IGNATION AND SERIAL NUMBER	₹:
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN,	ALLOTTEE OR TRIBE NAME:	_	
	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA NATURAL B	AGREEMENT NAME: UTTES	_
1. TYPE OF WELL Gas Well				8. WELL NAM NBU 1022-5	E and NUMBER: 5G1BS	_
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBE 430475358		_
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		NE NUMBER: 720 929-6	9. FIELD and 1NOATUERAL B	POOL or WILDCAT: UTTES	_
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1084 FNL 1951 FEL				COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 22.0E Me	ridian:	S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	T, OR OTHE	R DATA	_
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE		ALTER CASING	CASI	NG REPAIR	_
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHAN	NGE WELL NAME	
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CON	/ERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	FRACTURE TREAT	□ NEW	CONSTRUCTION	
	OPERATOR CHANGE		PLUG AND ABANDON	PLUG	BACK	
SPUD REPORT	PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	RECO	DMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL		PORARY ABANDON	
✓ DRILLING REPORT	L TUBING REPAIR		/ENT OR FLARE		ER DISPOSAL	
Report Date: 12/16/2014	WATER SHUTOFF		SI TA STATUS EXTENSION		EXTENSION	
	WILDCAT WELL DETERMINATION	، لــا	OTHER	OTHER:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. WELL IS TD AT 10,307'. WAITING ON COMPLETION OPERATIONS TO BEGIN. THANK YOU. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 17, 2014						
NAME (PLEASE PRINT)	PHONE NUM	BER	TITLE			_
Kay E. Kelly	720 929 6582		Regulatory Analyst			_
SIGNATURE N/A			DATE 12/16/2014			

Sundry Number: 60783 API Well Number: 43047535850000

	STATE OF UTAH			FORM 9	
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191-A		
SUNDR	Y NOTICES AND REPORTS	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
	posals to drill new wells, significantl reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 1022-5G1BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047535850000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		NE NUMBER: 9 720 929-6	9. FIELD and POOL or WILDCAT: 110ATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1084 FNL 1951 FEL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNE Section: (HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 22.0E Me	eridian:	S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	₹T, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME	
Approximate date work will start.	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	RACTURE TREAT	☐ NEW CONSTRUCTION	
2/10/2015	OPERATOR CHANGE	□ F	PLUG AND ABANDON	PLUG BACK	
SPUD REPORT	✓ PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL	
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION	
Report Bate.			TA OTATOO EXTENSION		
	WILDCAT WELL DETERMINATION		OTHER	OTHER:	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The NBU 1022-5G1BS was placed on production 02/10/2015 after a new well completion. Producing from the MESAVERDE/BLACKHAWK. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 11, 2015					
NAME (PLEASE PRINT)	PHONE NUM	MBER	TITLE		
Doreen Green	435 781-9758		Regulatory Analyst II		
SIGNATURE N/A			DATE 2/11/2015		

Sundry Number: 61449 API Well Number: 43047535850000

Form 3160-4 (August 2007)			DEPAR BUREAU	TMEN	T Ol		INTI									ON	IB No. 1	PROVED 1004-0137 ly 31, 2010
	WELL (COMPL	ETION C	R RE	СО	MPLE	TIO	N RE	EPOI	RT	AND L	.OG				ase Serial		
1a. Type of	f Well 🔲	Oil Well	⊠ Gas V	Well	_ I	Dry	O	ther							6. If	Indian, Al	lottee o	or Tribe Name
b. Type of	f Completion	_	lew Well er	☐ Wo			□ De	epen		Plug	Back	☐ Dif	f. Re	esvr.		nit or CA . TU63047		nent Name and No.
2. Name of KERR-I		AND G	AS ONSHŒ	RMEail:i	ennif	Contact er.thon					AS				8. Le	ase Name	and W	
	P.O. BOX DENVER,	173779		,				3a.	Phone	e No	. (include	e area co	ode)			PI Well N		43-047-53585
4. Location			ion clearly an	d in acc	cordai	nce with	ı Fede								10. F	ield and F	ool, or	Exploratory
At surfa	ce NWNE	1084FN	IL 1951FEL	39.982	279	N Lat,	109.4	161304	W Lo	on						ATURAL ec. T. R		r Block and Survey
At top p	rod interval r	eported b	elow SWI	NE 160	6FNL	_ 1827F	EL								0	Area Se	ec 5 T1	10S R22E Mer SLB
At total	depth SW	NE 1652	FNL 1807FI	EL 39.9	8075	55 N La	at, 10	9.460 ²	105 W	/ Lor	1					County or INTAH	Parish	13. State UT
14. Date Sp 12/19/2				ate T.D. /31/201		hed				D & .	Complete A 🔀 1/2015	ed Ready t	to Pr	od.	17. E		(DF, K 170 KB	B, RT, GL)*
18. Total D	epth:	MD TVD	10307 10257		19.	Plug B	ack T.	.D.:	ME TV)	10	248 198		20. Dep	th Bri	ige Plug S	Set:	MD TVD
21. Type E TRIPLE	lectric & Oth COMBO, F	er Mecha RADIAL (nical Logs R CEMENT BO	un (Sub OND G	mit co	opy of e	ach) CCL	TEM				W	as D	ell corec ST run? onal Sur		☑ No ☑ No ☐ No	☐ Ye	es (Submit analysis) es (Submit analysis) es (Submit analysis)
23. Casing ar	nd Liner Reco	ord (Repo	ort all strings	set in w	vell)													· · · · · · · · · · · · · · · · · · ·
Hole Size	Size/G		Wt. (#/ft.)	To (MI	•	Bott (M		_	Cemen Depth	nter		of Sks. & of Ceme		Slurry (BB		Cement	Top*	Amount Pulled
24.000		000 STL	36.7 28.0		0 18		40 2628	_					81 950				0	
7.875		625 J55 00 P110	11.6		18	_	<u>2020</u> 0294						950 942				1726	
												-						
24. Tubing	Record																	
	Depth Set (N	ID) P	acker Depth	(MD)	Si	ze	Deptl	h Set (I	MD)	P	acker De	pth (MD))	Size	De	pth Set (N	(D)	Packer Depth (MD)
2.375		8860					101	D 0		L								
25. Producii							26.	Perfor					_	g:	Τ,		1	D. C.C.
A)	ormation MESA VE	RDF	Тор	7094	Во	9736	1	<u> </u>	ertora	ated	nterval 7094 T	O 9061	+	Size 0.4	_	lo. Holes 192	_	Perf. Status
B)	BLACKH			9736		10307						O 9994		0.4			4 OPE	
C)																		
D)	, T		. C															
	Depth Interva		ment Squeeze	e, etc.						Λ r	nount and	d Type o	of Ma	ntaria1				
			994 PUMP 1	2891 BI	BLS S	SLICKW	ATER	, 54 BB	LS HC						30/50	MESH SA	ND	
28 Producti	ion - Interval	A																
Date First	Test	Hours	Test	Oil		Gas		Vater		Oil Gra		Ga			Producti	on Method		
Produced 02/10/2015	Date 02/27/2015	Tested 24	Production	BBL 7.0		MCF 1696.		346.0		Corr. A	.PI	Gr	ravity			FLO	WS FR	OM WELL
Choke Size	Tbg. Press. Flwg. 1643	Csg. Press	24 Hr. Rate	Oil BBL		Gas MCF		Vater BBL		Gas:Oi Ratio	l	W	ell Sta	tus				
20/64	SI 1643	2291.0		7	_ [1696		346	- 1	-uu			PO	3W				
	tion - Interva																	
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF		Vater BBL		Oil Gra Corr. A		Ga Gr	as ravity		Producti	on Method		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Gas MCF		Vater BBL		Gas:Oi Ratio	1	W	ell Sta	tus				

⁽See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #294372 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

5. Sundry Notice for plugging and cement verification 6. Core Analysis 7 Other: 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instruction Electronic Submission #294372 Verified by the BLM Well Information System.			00	358500)4753	: 430	Number	ell	API We	1449 2	er: 6	y Numb	Sundr
December December											al C	iction - Interv	28b. Prod
Size Production - Interval D		Production Method	у										
Due Fiest Test Due Tested Test Due			tatus	Well S								Flwg.	
Decided Date Tested Production BBL MCF BBL Cor. API Growing				l l			ļ.			-	al D	ction - Interv	28c. Produ
Press Pres		Production Method	у							Production			
SOLD 30. Summary of Porous Zones (Include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries. Formation Top Bottom Descriptions, Contents, etc. Name GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESA VERDE BLACKHAWK 32. Additional remarks (include plugging procedure): 33. Circle enclosed attachments: 1. Electrical/Mechanical Logs (I full set req'd.) 5. Sundry Notice for plugging and cement verification 6. Core Analysis 7. Other: 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instruction Electronic Submission #294372 Verified by the BLM Well Information System.			tatus	Well S								Flwg.	
Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries. Formation Top Bottom Descriptions, Contents, etc. Name GREEN RIVER BIRD'S NEST WASATCH MESA VERDE BLACKHAWK 32. Additional remarks (include plugging procedure): 33. Circle enclosed attachments: 1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Direction: 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instruction Electronic Submission #294372 Verified by the BLM Well Information System.				<u> </u>			I		ted, etc.)	for fuel, vent	Sold, used		
32. Additional remarks (include plugging procedure): 33. Circle enclosed attachments: 1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directions 5. Sundry Notice for plugging and attached information is complete and correct as determined from all available records (see attached instruction Electronic Submission #294372 Verified by the BLM Well Information System.		rmation (Log) Markers	31. Forr	es	l-stem n pressures	and all drill and shut-in	red intervals a	reof: Co ne tool o	ontents the	prosity and c	zones of p	all important neluding dept	Show tests, i
32. Additional remarks (include plugging procedure): 33. Circle enclosed attachments: 1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directions 5. Sundry Notice for plugging and cement verification 6. Core Analysis 7 Other:	Top Meas. Dept	Name		·.	ntents, etc.	ptions, Cor	Descri	n	Botton	Тор		Formation	
33. Circle enclosed attachments: 1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directions 5. Sundry Notice for plugging and cement verification 6. Core Analysis 7 Other: 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instruction Electronic Submission #294372 Verified by the BLM Well Information System.	1293 1605 2126 4548 7042 9736	RD'S NEST AHOGANY ASATCH ESA VERDE	BIR MAI WA ME:						edure):	ugging proc	(include p	onal remarks	32. Additi
Electronic Submission #294372 Verified by the BLM Well Information System.	al Survey	eport 4. Directiona			t			n	• /	•	nical Logs	ctrical/Mecha	1. Ele
For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal	ıs):	ystem. I	ation Sys e Vernal	Vell Inform sent to the	e BLM Wo SHORE,	fied by the	#294372 Veri	nission #	ronic Subn For KERR	Electi			
Name (please print) JENNIFER THOMAS Title REGULATORY SPECIALIST III		<u>'ECIALIST III</u>	ORY SPE	REGULATO	Title RI				<u>S</u>	R THOMAS	JENNIFE	(please print)	Name
Signature (Electronic Submission) Date 03/10/2015						ion)	ic Submissi	(Electron	ure	Signat			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or ago of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.	ency	y to make to any department or age	willfully 1	wingly and	erson know	for any pe	ake it a crime	1212, m	C. Section	Γitle 43 U.S.	1001 and	S.C. Section	Title 18 U

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				Opera	illon S	umma	ry Report	
	-5G1BS GREEN		av uni				Spud date: 1/1	
Project: UTAH-U			Site: NBU			_		Rig name no.: PROPETRO 12/12, SST 57/57
			Start date	1		NICIDAIE I	E IOIOIOR IONNINUA	End date: 8/2/2014 084/E/0/1951/0/0
Active datum: RI Level)	a	OVVI. IN	VV/INE/O/ I	0/3/22/E/	5/0/0/20/FIVI/IV/ IC	994/E/0/1931/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
1/12/2014	12:00 - 13:30	1.50	MIRU	01	С	Р	58	PRE JOB SAFETY MEETING. SKID RIG 20'. RIG UP SET MATTING BOARD, SET RIG IN PLACE, CATWALK, PIPE RACKS, PLACE BOTTOM HOLE ASSEMBLY.
	13:30 - 15:00	1.50	MIRU	01	С	Р	58	PRE SPUD JOB SAFETY MEETING. REVIEW DIRECTIONAL PLANS AND PLATS AND VERIFY LAT/LONGS AND WELL ORDER VERIFY DIRECTIONAL DRILLERS PLAN IS THE MOST RECENT AND APPROVED VERSION REFERENCE WELLBORE DIAGRAMS FOR EXACT CASING DESIGN AND GENERAL OVERVIEW OF WELLBORE, PRIOR TO SPUD. FINISH PICKING UP BHA.
	15:00 - 16:30	1.50	DRLSUR	02	В	P	58	PICK UP NOV 1.83 DEGREE BENT MOTOR (RUN # 1) .17 REV/GAL PICK UP 12 1/4" DRILL BIT. SPUD @ 1/12/2014 15:00. DRILL 12.25" HOLE 44' TO 210' (166' @ 111 FPH). WEIGHT ON BIT 5-15 K. STROKES PER MINUTE=120, GALLONS PER MINUTE=491. PRESSURE ON/OFF (BOTTOM) 800/600. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROTATE 25/25/25 K. DRAG 0 K. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 1 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS.
	16:30 - 17:30	1.00	DRLSUR	06	Α	Р	224	PRE JOB SAFETY MEETING, CIRC 15 MINUTES AND, TRIP OUT TO CHANGE ASSEMBLY. BREAK 12 1/4" BIT.
	17:30 - 18:00	0.50	DRLSUR	23		Р	224	CONDUCT PRE TOUR SAFETY MEETING. TOPIC: PICKING UP 11" BHA.
	18:00 - 19:00	1.00	DRLSUR	13	Α	Х	224	****WAITING ON CEMENT FROM PREVIOUS WELL. WHILE CIRCULATING CLEAN AT 210 BEFORE TRIPPING, NOTICE LOST CIRCULATION.****
	19:00 - 21:00	2.00	DRLSUR	06	Α	Р	224	MAKE UP BAKER HUGHES 11" BIT. PICK UP 8" DIRECTIONAL ASSEMBLY SCIBE MOTOR. INSTALL EM TOOL, TRIP IN HOLE.

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<u> Sundry Number: 61449 APT Well Number: 43047535850000</u> US ROCKIES REGION **Operation Summary Report** Spud date: 1/12/2014 Well: NBU 1022-5G1BS GREEN Project: UTAH-UINTAH Site: NBU 1022-5B PAD Rig name no.: PROPETRO 12/12, SST 57/57 Event: DRILLING End date: 8/2/2014 Start date: 1/12/2014 UWI: NW/NE/0/10/S/22/E/5/0/0/26/PM/N/1084/E/0/1951/0/0 Active datum: RKB @5,170.00usft (above Mean Sea Date P/U Phase Code Time Duration Sub MD from Operation Start-End (hr) Code (usft) 21:00 - 0:00 3.00 DRLSUR 02 В Ρ 224 DRILL 11" SURFACE HOLE FROM 210' TO 500' (290' @ 97 FPH). WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 950/750. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 59/49/82 K. DRAG 7 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 3.6' HIGH & 0.6' RIGHT OF THE LINE WITH 58' OF SLIDE @ 11%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES. 1/13/2014 0:00 - 5:30 5.50 **DRLSUR** 514 DRILL 11" SURFACE HOLE FROM 500' TO 1040' (540' @ 98 FPH). WEIGHT ON BIT 18-21 K STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 1150/950. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 59/49/82 K. DRAG 7 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 3.6' HIGH & 0.6' RIGHT OF THE LINE WITH 58' OF SLIDE @ 11%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND. RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES. - 6:00 0.50 DRLSUR 1054 CONDUCT PRE TOUR SAFETY MEETING. TOPIC: MAKING CONNECTIONS. 6:00 - 17:30 DRLSUR 1054 11.50 02 В Ρ DRILL 11" SURFACE HOLE FROM 1040' TO 2030' (990' @ 86 FPH) WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 1300/1100. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 75/55/65 K. DRAG 10 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 5' HIGH & 3.4' LEFT OF THE LINE WITH 126' OF SLIDE @ 13%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND. RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES. 17:30 - 18:00 0.50 DRLSUR 2044 23 CONDUCT PRE TOUR SAFETY MEETING. TOPIC: MAKING CONNECTIONS.

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<u> Sundry Number: 61449 APT Well Number: 43047535850000</u> **US ROCKIES REGION Operation Summary Report** Spud date: 1/12/2014 Well: NBU 1022-5G1BS GREEN Project: UTAH-UINTAH Site: NBU 1022-5B PAD Rig name no.: PROPETRO 12/12, SST 57/57 Event: DRILLING End date: 8/2/2014 Start date: 1/12/2014 UWI: NW/NE/0/10/\$/22/E/5/0/0/26/PM/N/1084/E/0/1951/0/0 Active datum: RKB @5,170.00usft (above Mean Sea Date P/U Phase Code Time Duration Sub MD from Operation Start-End (hr) Code (usft) 18:00 - 0:00 6.00 DRLSUR 02 В Ρ 2044 DRILL 11" SURFACE HOLE FROM 2030' TO 2480' (450' @ 75 FPH). WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 1650/1530. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 88/62/73 K. DRAG 15 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 4.4' HIGH & 3.6' LEFT OF THE LINE WITH 27' OF SLIDE @ 6%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES. 1/14/2014 0:00 - 2:30 2.50 **DRLSUR** В 2494 DRILL 11" SURFACE HOLE FROM 2480' TO 2640' (160' @ 64 FPH). TD WELL AT 2640'. WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 1550/1350. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 89/66/74 K. DRAG 15 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 3.8' HIGH & 4.8' LEFT OF THE LINE WITH 12' OF SLIDE @ 7%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES. 2:30 - 4:30 2.00 DRLSUR 05 2654 CIRCULATE AND CONDITION HOLE. VOLUME IS CLEAN COMING OVER SHAKERS. 2-400 BBL UPRIGHT'S FULL AND 4-400 BBL UPRIGHTS EMPTY. 1,000 BBLS OF FRESH WATER ON LOCATION FOR CEMENT JOB. 4:30 - 11:30 7.00 DRLSUR 2654 06 PRE JOB SAFETY MEETING, TRIP OUT OF HOLE, LAY DOWN DRILL STRING, BOTTOM HOLE ASSEMBLY. LAY DOWN DIRECTIONAL TOOLS, MOTOR, AND, CLEAR TOOL AREA. SPOT SURFACE CASING FOR 8

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5/8" CASING RUN.

<u> Sundry Number: 61449 APT Well Number: 43047535850000</u> **US ROCKIES REGION Operation Summary Report** Spud date: 1/12/2014 Well: NBU 1022-5G1BS GREEN Project: UTAH-UINTAH Site: NBU 1022-5B PAD Rig name no.: PROPETRO 12/12, SST 57/57 Event: DRILLING End date: 8/2/2014 Start date: 1/12/2014 UWI: NW/NE/0/10/S/22/E/5/0/0/26/PM/N/1084/E/0/1951/0/0 Active datum: RKB @5,170.00usft (above Mean Sea Date P/U Phase Code Time Duration Sub MD from Operation Start-End (hr) Code (usft) 11:30 - 14:00 2.50 **CSGSUR** 12 С Ρ 2654 RUN 59 JOINTS OF 8-5/8". 28# J-55 LTC CASING. RAN 1 CENTRALIZER ON FIRST THREE JOINTS, AND EVERY OTHER JOINT FOR 2 JOINTS FOR A TOTAL OF 5 CENTRALIZERS. RUN A TOTAL OF 59 JOINTS. RUN CASING TO BOTTOM WITH NO PROBLEMS. SET FLOAT SHOE @ 2610' KB. SET TOP OF BAFFLE PLATE @ 2564'. 14:00 - 15:30 1.50 **CSGSUR** 12 Ε 2654 PRE JOB SAFETY MEETING WITH PRO PETRO CEMENTERS. RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING PRESSURE TEST LINES TO 2,000 PSI. PUMP 100 BBLS OF WATER AHEAD CLEARING MIX AND PUMP 20 BBLS OF GEL WATER FLUSH AHEAD OF CEMENT. MIX & PUMP 300 SX OF PREMIUM TAIL CEMENT WITH 2% CACL2 & 0.25 LB/SX FLOCELE, 61.4 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. DROP PLUG ON FLY. DISPLACE WITH 146 BBLS OF FRESH WATER. NO RETURNS THROUGH OUT JOB. FINAL LIFT OF 290 PSI AT 3.5 BBL/MINUTE. BUMPED PLUG @ 600 PSI. HELD @ 600 PSI FOR 5 MINUTES WITHOUT BLEED OFF. TESTED FLOAT AND FLOAT HELD. BUMPED PLUG AT 15:30. SHUT DOWN AND WASH UP. RELEASE RIG @ 01/15/2014 00:00 TOP JOB # 1: PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX (30.7 BBLS) PREMIUM CEMENT WITH 4% CACL2 & .25 LB/SX FLOCELE. 30.7 BBLS OF SLURRY MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO CEMENT RETURNS TO SURFACE SHUT DOWN AND WASH UP. WAIT 1.5 HOURS ON CEMENT. TOP JOB # 2 : PUMP CEMENT DOWN BACKSIDE W/ 200 SX (40.9 BBLS) SAME CEMENT, 3 BBLS CEMENT RETURNS TO SURFACE. CEMENT DROPPED BACK DOWN. WAIT 1.5 HOURS ON CEMENT. TOP JOB # 3 : PUMP CEMENT DOWN BACKSIDE W/ 150 SX (30.7 BBLS) SAME CEMENT, 3 BBLS CEMENT RETURNS TO SURFACE.. TOP JOB # 4 : PUMP CEMENT DOWN BACKSIDE W/ 150 SX (30.7 BBLS) SAME CEMENT, 3 BBLS CEMENT RETURNS TO SURFACE. CEMENT STAYED AT SURFACE. RIG DOWN CEMENTERS. (CEMENT JOB FINISHED @ 01/14/2014 00:00)

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y y	Number:	<u> </u>	API WE					350000
						KIES RE Summa	ry Report	
Vell: NBU 1022-	5G1BS GREEN			Орега		Jannia	Spud date: 1/1	12/2014
Project: UTAH-U			Site: NBU	1022-5E	PAD			Rig name no.: PROPETRO 12/12, SST 57/57
Event: DRILLING Start date:					14			End date: 8/2/2014
ctive datum: R	KB @5,170.00usft (above Mean S				 0/S/22/E/5	/0/0/26/PM/N/10	084/E/0/1951/0/0
evel) Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	15:30 - 0:00	8.50	CSGSUR	01	A	Р	2654	PREPARE RIG TO RIG MOVE TO NBU 1022-5A PAD. 1/2 MILE RIG MOVE. MOVED OUT ALL 6 UPRIGHT TANKS AND DRILLING FLUID. RIG DOWN PITS AND RIG. RIG MOVE IN THE MORNING
7/27/2014	0:00 - 1:00	1.00	MIRU3	01	С	Р	2654	SKID RIG 10' TO NBU 1022-5G1BS
	1:00 - 2:00	1.00	PRPSPD	14	Α	Р	2654	NIPPLE UP BOPE, FLOW LINE
	2:00 - 3:00	1.00	PRPSPD	15	A	Р	2654	HOLD SAFETY MEETING, RUN TEST ASSY, TEST BOPE WITH A-1 TESTERS - TEST WELL HEAD TO 250 PSI LOW/ 5 MIN 2500 PSI HIGH 10 MIN, CHOKE LINE, 250 PSI LOW/ 5 MIN - 5000 PSI HIGH TEST CSG 1500 PSI - 30 MIN, RIG DOWN
	3:00 - 3:30	0.50	PRPSPD	24	В	Р	2654	SET WEAR BUSHING
	3:30 - 4:30	1.00	PRPSPD	06	Α	Р	2654	PICK UP MUD MOTOR, BIT, MWD & TRIP IN HOLE, TAG CEMENT @ 2,535
	4:30 - 6:00	1.50	DRLPRC	02	F	Р	2654	DRILL CEMENT, F/E & OPEN HOLE TO 2654', SHOE @ 2610' BAFFLE @ 2564'
	6:00 - 8:00	2.00	DRLPRC	02	D	P	2654	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 2,654' TO 2930= 276' @ 138' PH WEIGHT ON BIT = 20-24 KLBS STROKES PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 9-10K STAND PIPE PRESSURE ON BOTTOM = 1230 STAND PIPE PRESSURE OFF BOTTOM = 1050 STRING WEIGHT UP/DOWN/ROTATING =118 K / 102 K / 93K DRAG = K HOLE IN GOOD CONDITION Slide 34' @ 8.2% = .40 Hrs: Rot 242' @ 91.8% = 1.60 Hrs. 0.01' Low / 2.2' Left OF PLAN BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING MUD WEIGHT = 8.5 PPG VISCOSITY = 27 SECONDS

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Sundry	Number:	61449	APT We	7]] V	Iumbe	r: 4	3047535	850000
				U	S ROC	KIES R	EGION	
				Opera	tion S	umma	ary Report	
Well: NBU 1022	-5G1BS GREEN						Spud date: 1/1	2/2014
Project: UTAH-L	JINTAH		Site: NBU	J 1022-5E	3 PAD			Rig name no.: PROPETRO 12/12, SST 57/57
Event: DRILLING	G		Start date	e: 1/12/20	14			End date: 8/2/2014
Active datum: RI Level)	KB @5,170.00usft (al	oove Mean S	ea	UWI: N	W/NE/0/1	0/S/22/E/	5/0/0/26/PM/N/10	084/E/0/1951/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	8:00 - 12:30	4.50	DRLPRC	02	D	P	2930	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 2930 TO 3650', 720' @ 160' PH WEIGHT ON BIT = 20-24 KLBS STROKES PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 5-7K STAND PIPE PRESSURE ON BOTTOM = 1330 STAND PIPE PRESSURE OFF BOTTOM = 1150 STRING WEIGHT UP/DOWN/ROTATING = 124K / 112 K / 102K DRAG = K HOLE IN GOOD CONDITION Slide 96' @ 14,3% = 1.0 Hrs: Rot 624' @ 90.1% = 2.92 Hrs. 10.1' North / 12.3' West -OF TARGET CENTER BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING DE-SANDER - RUNNING MUD WEIGHT = 8.5 PPG VISCOSITY = 27 SECONDS MIXING HIGH VISCOSITY SWEEPS WITH CALCARB
	12:30 - 15:00	2.50	DRLPRV	02	В	P	3650	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLF FROM / 3650 TO 4073', 423' @ 169.2' PH WEIGHT ON BIT = 20-24 KLBS STROKES PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 8-10K STAND PIPE PRESSURE ON BOTTOM = 1230 STAND PIPE PRESSURE OFF BOTTOM = 1050 STRING WEIGHT UP/DOWN/ROTATING =128K / 114K / 104K DRAG = 24 K HOLE IN GOOD CONDITION Slide 18' @ 3.7% = 0.17 Hrs: Rot 405' @ 96.3% = 2.00 Hrs. 2.7' North / 7.8' West OF TARGET CENTER BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING DE-SANDER - RUNNING MUD WEIGHT = 8.5 PPG VISCOSITY = 27 SECONDS MIXING HIGH VISCOSITY SWEEPS WITH CALCARB
	15:00 - 15:30	0.50	DRLPRV	07	Α	Р	4073	SERVICE RIG

3/2/2015 1:19:06PM 6

<u> Sundry Number: 61449 APT Well Number: 43047535850000</u> **US ROCKIES REGION Operation Summary Report** Spud date: 1/12/2014 Well: NBU 1022-5G1BS GREEN Project: UTAH-UINTAH Site: NBU 1022-5B PAD Rig name no.: PROPETRO 12/12, SST 57/57 Event: DRILLING End date: 8/2/2014 Start date: 1/12/2014 UWI: NW/NE/0/10/S/22/E/5/0/0/26/PM/N/1084/E/0/1951/0/0 Active datum: RKB @5,170.00usft (above Mean Sea Date P/U Phase Code Time Duration Sub MD from Operation Start-End (hr) Code (usft) 15:30 - 0:00 8.50 **DRLPRV** 02 В Ρ 4073 DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 4073' TO 5501'=1428'@168'PH WEIGHT ON BIT = 20-24 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 9-11K STAND PIPE PRESSURE ON BOTTOM = 1600 STAND PIPE PRESSURE OFF BOTTOM = 1300 STRING WEIGHT UP/DOWN/ROTATING = 203K / 165K / 158K DRAG =38 K HOLE IN GOOD CONDITION Slide 65' @ 11.7% = .83 Hrs: Rot 1363' @ 88.3% = 7.08 Hrs. 8.26' North / 7.5' West OF TARGET CENTER **BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING DE-SANDER - RUNNING** MUD WEIGHT = 8.8 PPG VISCOSITY = 27 SECONDS MIXING HIGH VISCOSITY SWEEPS WITH CALCARB 0:00 7/28/2014 - 8:30 8.50 DRLPRV 02 В 5501 DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 5,501' TO 6,644' = 1,143' @ 134.5' PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 10-13K STAND PIPE PRESSURE ON BOTTOM = 1675 STAND PIPE PRESSURE OFF BOTTOM = 1340 STRING WEIGHT UP/DOWN/ROTATING = 220K / 135K / 170K DRAG = K HOLE IN GOOD CONDITION Slide 22' @ 6.0% = .5 Hrs Rot 1121' @ 94.0% = 8 Hrs 7.3' North / 6.0' West OF TARGET CENTER **BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING DE-SANDER - RUNNING** MUD WEIGHT = 8.8 PPG VISCOSITY = 27 SECONDS MIXING HIGH VISCOSITY SWEEPS WITH CALCARB 8:30 - 9:00 0.50 DRLPRV 6644 80 Α Ζ ***REPAIR RIG, ELECTRICAL, SCR, CHAGEOUT 600 **VOLT BREAKER** 9:00 - 9:30 0.50 **DRLPRV** Ρ 6644 LUBRICATE RIG, GREASE TOP DRIVE

3/2/2015 1:19:06PM

Α

	y Number: 6					KIES R		
				Opera	ition S	umma	ry Report	
Well: NBU 1022	2-5G1BS GREEN						Spud date: 1/1	2/2014
Project: UTAH-l	UINTAH		Site: NBU	J 1022-5E	3 PAD			Rig name no.: PROPETRO 12/12, SST 57/57
Event: DRILLING Start date				e: 1/12/20	14			End date: 8/2/2014
Active datum: R Level)	RKB @5,170.00usft (ab	ove Mean Se	a	UWI: N	W/NE/0/1	0/S/22/E/	5/0/0/26/PM/N/10	084/E/0/1951/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	9:30 - 18:00	8.50	DRLPRV	02	В	P	6644	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 6,644' T/ 7,598' =954' @112.2' PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 10-13K STAND PIPE PRESSURE ON BOTTOM = 1675 STAND PIPE PRESSURE OFF BOTTOM = 1400 STRING WEIGHT UP/DOWN/ROTATING =250 K / 160K / 182K DRAG =68 K HOLE IN GOOD CONDITION Slide 34' @ 11.76% = 1 Hrs Rot 920' @ 88.24% = 7.5Hrs. 11.8' North / 7.54' West OF TARGET CENTER BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING DE-SANDER - RUNNING MUD WEIGHT = 9.0 PPG VISCOSITY = 27 SECONDS MIXING HIGH VISCOSITY SWEEPS WITH CALCARB
	18:00 - 0:00	6.00	DRLPRV	02	В	Р	7598	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 7,598' T/ 8,018' =420'@69.8' PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 11-15K STAND PIPE PRESSURE ON BOTTOM = 1685 STAND PIPE PRESSURE OFF BOTTOM = 1400 STRING WEIGHT UP/DOWN/ROTATING =250 K / 160K / 182K DRAG =68 K HOLE IN GOOD CONDITION Slide 23' @ 22.0% = 1.08 Hrs: Rot 397' @ 78% =3.84 Hrs. 14.91' North / 9.4' West OF TARGET CENTER BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING DE-SANDER - RUNNING MUD WEIGHT = 9.0 PPG VISCOSITY = 27 SECONDS MIXING HIGH VISCOSITY SWEEPS WITH CALCARB

3/2/2015 1:19:06PM 8

MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FFILES TOROUL = 11-15K STAND PIPE PRESSURE ON BOTTOM = 1885 STAND PIPE PRESSURE OF BOTTOM = 1400 STRING WEIGHT UPPDOWNROTATING = 279K / 16 / 210K DRAG = 65 K HOLE IN COOD CONDITION Side 0" @ 0.0% = 0.0 Hrs Red 628 @ 100% - 7.4 Hrs. 11.2 North / 9.0" Vest OF TARGET CENTER BOS DE-WATERING. RUNNING CENTRIFICE RUNNING MUD WEIGHT = 9.0 PPG VISCOSITY = 33 SECONDS MIXING HIGH VISCOSITY SWEEPS WITH CALCAR PIRE FROM / 8.646 T9 ,0.27 -361 @64.4 PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FFILES TOROULE = 12-16K STAND PIPE PRESSURE ON BOTTOM = 2050 STRING WEIGHT UPPLOWANTOTATING = 290K / 17 / 216K DRAG = 72K HOLE IN GOOD CONDITION SIde 0" @ 0.0% = 0.0 Hrs Red 381 @ 100% = 7 Hrs 3.6* North / 5.1" West OF TARGET CENTER BOS DE-WATERING. RUNNING CENTRIFICE RUNNING					U	S ROCI	KIES RI	EGION	
Size: NBU 1022-58 PAD					Opera	tion S	umma	ry Report	
Event DRILLING Start date: 1/12/2014 End date: 8/2/2014 End date: 8/2/2014 End date: 8/2/2014 End date: 8/2/2014 UM: NW/NH/E/0/10/6/22/E/5/0/02/6/PM/N*/(68/E/0/1951/0/0 Operation	Nell: NBU 1022-	-5G1BS GREEN						Spud date: 1/1	12/2014
Unit	Project: UTAH-U	IINTAH		Site: NBU	J 1022-5E	PAD			Rig name no.: PROPETRO 12/12, SST 57/57
Date Time Duration Phase Code Sub P/U M/D from Committee Code Co	Event: DRILLING	3		Start date	e: 1/12/20	14			End date: 8/2/2014
Date Time Clark-End Clystell Clode	Active datum: R	KB @5,170.00usft (al	bove Mean S	ea	UWI: N\	N/NE/0/1	0/S/22/E/	5/0/0/26/PM/N/10	084/E/0/1951/0/0
Start-End	•	1							
77.29/2014 0.00 - 8.00 8.00 DRLPRV 02 B P 8018 DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM 7.8.015 T7 8,648(=828 @78.879H WEIGHT ON BIT = 20-25 KLES STROKE PER MINUTE 1 PUMP @ 105, GALLONS MINUTE = 505 MUD MOTOR RPM = 70 TOP DRIVE PROSEQUE = 11-15K STAND PIPE PRESSURE ON BOTTOM = 1885 STAND PIPE PRESSURE ON BOTTOM = 1885 STAND PIPE PRESSURE ON BOTTOM = 1400 STRING WEIGHT OF DODOUGHOUTHOUT PUPPOWWROTATING =279K / 16 / 210K INGOOD CONDITION Side 0' @ 0.0% = 0.0 Hrs Red 28 @ 100% = 7.42 Hrs. 11.2 North 7 = 0.0PFG WISCOSITY = 33 SECONDS MIXING HIGH VISCOSITY = 33 SECONDS MIXING HIGH VISCOSITY = 33 SECONDS MIXING HIGH VISCOSITY = 30 SECONDS M	Date			Phase	Code		P/U		Operation
8:00 - 15:00 7:00 DRLPRV 02 B P 8646 DIRECTIONAL DRILL 7 7/8 PRODUCTION HOI F FROM / 8,646" T/ 9,027"=381"@54.4"PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 13-16K STAND PIPE PRESSURE ON BOTTOM = 2050 STAND PIPE PRESSURE ON BOTTOM = 1800 STRING WEIGHT UP/DOWN/ROTATING =290K / 17 / 218K DRAG = 72K HOLE IN GOOD CONDITION Slide 0' @ 0.0% = 0.0 Hrs Rot 381" @ 100% = 7 Hrs 3.6" North / 5.1" West OF TARGET CENTER BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING DE-SANDER - RUNNING	772072017		0.00		<u>G2</u>				FROM / 8,018' T/ 8,646'=628'@78.5'PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 11-15K STAND PIPE PRESSURE ON BOTTOM = 1685 STAND PIPE PRESSURE OFF BOTTOM = 1400 STRING WEIGHT UP/DOWN/ROTATING =275K / 165K / 210K DRAG =65 K HOLE IN GOOD CONDITION Slide 0' @ 0.0% = 0.0 Hrs Rot 628' @ 100% = 7.42 Hrs. 11.2' North / 9.0' West OF TARGET CENTER BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING DE-SANDER - RUNNING MUD WEIGHT = 9.0 PPG VISCOSITY = 33 SECONDS
MUD WEIGHT = 10.7 PPG VISCOSITY = 33 SECONDS DISPLACING WITH 12 PPG MUD @ 8,900		8:00 - 15:00	7.00	DRLPRV	02	В	P	8646	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 8,646' T/ 9,027'=381'@54.4'PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 13-16K STAND PIPE PRESSURE ON BOTTOM = 2050 STAND PIPE PRESSURE OFF BOTTOM = 1800 STRING WEIGHT UP/DOWN/ROTATING =290K / 175K / 218K DRAG = 72K HOLE IN GOOD CONDITION Slide 0' @ 0.0% = 0.0 Hrs Rot 381' @ 100% = 7 Hrs 3.6' North / 5.1' West OF TARGET CENTER BOS DE-WATERING - RUNNING CENTRIFUGE - RUNNING MUD WEIGHT = 10.7 PPG VISCOSITY = 33 SECONDS

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				U	S ROCI	KIES RE	GION			
				Opera	ition S	umma	ry Report			
Vell: NBU 1022-	5G1BS GREEN			Spud date: 1/12/2014						
Project: UTAH-U	INTAH		Site: NBU	1022-5E	3 PAD			Rig name no.: PROPETRO 12/12, SST 57/57		
Event: DRILLING Start da		Start date	: 1/12/20	14			End date: 8/2/2014			
Active datum: Rk .evel)	KB @5,170.00usft (al	bove Mean Se	ea	UWI: NW/NE/0/10/S/22/E/5/0/0/26/PM/N/108				084/E/0/1951/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation		
	15:30 - 0:00	8.50	DRLPRV	02	В	P	9027	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 9,027' T/ 9318' =291'@34,2'PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 105, GALLONS PER MINUTE = 506 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 8-11K STAND PIPE PRESSURE ON BOTTOM = 2425 STAND PIPE PRESSURE OFF BOTTOM = 2425 STRING WEIGHT UP/DOWN/ROTATING =263K / 185K / 220K DRAG = 43 K HOLE IN GOOD CONDITION Slide 0' @ 0.0% = 0.0 Hrs; Rot 291' @ 100% =8.17 Hrs. 3.84' South / 1.8' West OF TARGET CENTER BOS DE-WATERING - CONVENTIONAL CENTRIFUGE - RUNNING MUD WEIGHT = 12 PPG VISCOSITY = 37 SECONDS		
7/30/2014	0:00 - 8:00	8.00	DRLPRV	02	В	Р	9318	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 9,318' T/ 9,539' =221'@27.6' PH WEIGHT ON BIT = 20-25 KLBS STROKE PER MINUTE 1 PUMP @ 100, GALLONS PER MINUTE = 491 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 8-11K STAND PIPE PRESSURE ON BOTTOM = 2425 STAND PIPE PRESSURE OFF BOTTOM = 2285 STRING WEIGHT UP/DOWN/ROTATING =295K / 185K / 220K BOS DE-WATERING - CONVENTIONAL CENTRIFUGE - RUNNING DE-SANDER - RUNNING MUD WEIGHT = 12 PPG VISCOSITY = 37 SECONDS		

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				U	SROC	KIES RI	EGION			
				Opera	tion S	umma	ry Report			
Vell: NBU 1022-	5G1BS GREEN			Spud date: 1/12/2014						
roject: UTAH-U	INTAH		Site: NBU	1022-5E	3 PAD			Rig name no.: PROPETRO 12/12, SST 57/57		
vent: DRILLING	3		Start date	: 1/12/20	14			End date: 8/2/2014		
ctive datum: Rk	KB @5,170.00usft (ak	bove Mean S	ea	UWI: N	W/NE/0/1	0/S/22/E/	5/0/0/26/PM/N/10	084/E/0/1951/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation		
	8:00 - 15:00	7.00	DRLPRV	02	В	Р	9539	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 9,539' T/9694' = 155'@ 22' PH WEIGHT ON BIT = 24-30 KLBS STROKE PER MINUTE 1 PUMP @ 100, GALLONS PER MINUTE = 491 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 8-14K STAND PIPE PRESSURE ON BOTTOM = STAND PIPE PRESSURE OFF BOTTOM = STRING WEIGHT UP/DOWN/ROTATING = 300K / 180K / 222K BOS DE-WATERING - CONVENTIONAL CENTRIFUGE - RUNNING DE-SANDER - RUNNING MUD WEIGHT = 12 PPG VISCOSITY = 37 SECONDS LCM = 6 %		
	15:00 - 15:30	0.50	DRLPRV	07	Α	Р	9694	RIG SERVICE		
	15:30 - 0:00	8.50	DRLPRV	02	В	P	9694	DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 9694' T/9974' = 280'@ 33' PH WEIGHT ON BIT = 23-28 KLBS STROKE PER MINUTE 1 PUMP @ 100, GALLONS PER MINUTE = 491 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 10-15K STAND PIPE PRESSURE ON BOTTOM = 2700 STAND PIPE PRESSURE OFF BOTTOM = 2350 STRING WEIGHT UP/DOWN/ROTATING = 310K / 176K / 225K BOS DE-WATERING - CONVENTIONAL CENTRIFUGE - RUNNING DE-SANDER - RUNNING MUD WEIGHT = 12.1 PPG		

3/2/2015 1:19:06PM 11

LCM = 6 %

<u> Sundry Number: 61449 APT Well Number: 43047535850000</u> US ROCKIES REGION **Operation Summary Report** Spud date: 1/12/2014 Well: NBU 1022-5G1BS GREEN Project: UTAH-UINTAH Site: NBU 1022-5B PAD Rig name no.: PROPETRO 12/12, SST 57/57 Event: DRILLING End date: 8/2/2014 Start date: 1/12/2014 UWI: NW/NE/0/10/S/22/E/5/0/0/26/PM/N/1084/E/0/1951/0/0 Active datum: RKB @5,170.00usft (above Mean Sea Date P/U Phase Code Time Duration Sub MD from Operation Start-End (hr) Code (usft) 0:00 - 10:30 7/31/2014 10.50 DRLPRV 02 В Ρ 9974 DIRECTIONAL DRILL 7 7/8 PRODUCTION HOLE FROM / 9,974' T/ 10,307' = 333'@ 31.7' PH WEIGHT ON BIT = 25-30 KLBS STROKE PER MINUTE 1 PUMP @ 100, GALLONS PER MINUTE = 491 MUD MOTOR RPM = 70 TOP DRIVE RPM = 60 TOTAL RPM = 120-130 FT/LBS TORQUE = 11-14K STAND PIPE PRESSURE ON BOTTOM = 2765 STAND PIPE PRESSURE OFF BOTTOM = 2455 STRING WEIGHT UP/DOWN/ROTATING =275k / 190k / 230K 33.39' South / 8.66' East BOS DE-WATERING - CONVENTIONAL **CENTRIFUGE - RUNNING DE-SANDER - RUNNING** MUD WEIGHT = 12.1 PPG VISCOSITY = 37 SECONDS LCM = 4 TO 6 % 10:30 - 12:00 1.50 **DRLPRV** 05 Α Р 10,307 CONDITION MUD AND CIRCULATE, PUMP HI VIS LCM 12:00 - 13:00 DRLPRV 1.00 06 Ε Р 10,307 SHORT TRIP 10 STANDS 13:00 - 14:30 Ρ 1.50 **DRLPRV** 05 Α 10,307 CONDITION MUD AND CIRCULATE, PUMP HI VIS LCM SWEEP 14:30 - 21:00 Р 6.50 **DRLPRV** 06 10,307 TRIP OUT FOR SHUTTLE LOGS AND LD **DIRECTIONAL BHA** PUMP PILL PULL OFF BOTTOM - 310 KLBS HOLE IN GOOD CONDITION 21:00 - 22:30 1.50 **EVALPR** 06 В Р 10,307 PU LOGGING TOOLS 22:30 - 0:00 1.50 **EVALPR** 06 В 10,307 TIH WITH LOGGING TOOLS TO CASING SHOE 0:00 - 1:00 8/1/2014 1.00 Ρ 10,307 **EVALPR** 09 Α CUT AND SLIP 104.5' 1:00 - 4:00 3.00 **EVALPR** 10,307 TRIP IN HOLE WITH SHUTTLE LOGS 06 Р В 4:00 - 5:00 1.00 **EVALPR** 05 Α Ρ 10,307 DROP DART, DEPLOY LOGGING TOOLS. CIRCULATE AND CONDITION HOLE 5:00 - 13:30 8.50 **EVALPR** 06 В Р 10,307 TRIP OUT OF HOLE LOGGING TO SHOE - PULLING @ 30 FPH - HOLE IN GOOD SHAPE 13:30 - 15:00 1.50 **EVALPR** Р 06 10,307 J LAY DOWN SHUTTLE LOGGING TOOLS 15:00 - 15:30 0.50 **CSGPRO** В 10.307 PULL WEAR BUSHING 14 Р 15:30 - 16:30 1.00 **CSGPRO** 12 Α Р 10,307 RU CASERS LD TRUCK, FLAG POLE AND TROUGH. POWER TONGS, TORQUE TURN, AND FLOOR 16:30 - 23:30 7.00 **CSGPRO** 12 С Р 10,307 RUN 119 JTS + 2 MARKER JTS 4 1/2", 11.6# P110, LT&C CASING + 111 JTS + CROSSOVER + PUP JT, 4 1/2", 11.6#, P110, DQX CASING, SET @ 10293.9", PLUG BACK @ 10246.51', RAN 15 CENT'S TOP OF MESEVERDE MK JT 7058.89' TOP OF BLACKHAWK MK JT 9713.82' 23:30 - 0:00 0.50 CSGPRO 05 D Р 10,307 CIRCULATE / RIG DOWN WYOMING CASING

3/2/2015 1:19:06PM 12

Р

10,307

0.00

8/2/2014

- 1:00

1.00

CSGPRO

05

D

SERVICE CASING TOOLS / RIG UP BAKER
CEMENTING EQUIPMENT - CIRCULATE @ 90 SPM =

CIRCULATE CASING AND RUBAKER CEMENTERS

442 GPM @ 950 PSI

Sundry	Number:	61449	APT We	ע ווי	Jumbe	<u> </u>	30475358	850000
				U	SROC	KIES RE	EGION	
				Opera	tion S	Summa	ry Report	
Well: NBU 1022-	5G1BS GREEN						Spud date: 1/1	2/2014
Project: UTAH-U	INTAH		Site: NBU	J 1022-5B PAD				Rig name no.: PROPETRO 12/12, SST 57/57
Event: DRILLING	3		Start date	e: 1/12/20	14			End date: 8/2/2014
Active datum: Rh	⟨B @5,170.00usft (a	bove Mean S	ea	UWI: N	W/NE/0/1	10/S/22/E/	5/0/0/26/PM/N/10	084/E/0/1951/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	1:00 - 5:00	4.00	CSGPRO	12	E	P	10,307	CEMENT W/ BJ - HOLD SAFETY MEETING - TEST LINES TO 5000 PSI - PUMP 25 BBLS WATER SPACER - 184 BBLS LEAD CEMENT 602 SKS @ 13.0 PPG W/ 1.72 YIELD, MIX & PUMP 320 BBLS TAIL CEMENT 1340 SKS @ 14.3 PPG W/ 1.35 YIELD - WASH UP LINES - DISPLACE W/ 159.6 BBLS WATER - BUMP PLUG TO 3976 PSI - 3480 PSI FINAL LIFT PRESSURE PRIOR TO BUMP PLUG / FLOAT HELD/ LOST FULL RETURNS WITH 500 BBLS LEFT TO DISPLACE, HAD SEEN 15 BBLS OF H20 PRIOR TO LOSING RETURNS - RIG DOWN CEMENTERS PUMPED 30% EXCESS ON LEAD & 25% EXCESS ON TAIL CEMENT EST TOP OF TAIL IS 4000'
	5:00 - 5:30	0.50	CSGPRO	14	В	Р	10,307	SET PACKOFF AND TEST
	5:30 - 6:00	0.50	RDMO	01	Ε	Р	10,307	ND BOP, RIG DOWN, PREPARE RIG TO SKID

3/2/2015 1:19:06PM 13

Sundry Number: 61449 APP dje of the UTAHN WITH MICHE (feet), NAD 27/ Zon 6 8 200000

Scientific Drilling

1300

1950

2600

3250

3900

4550

5200

5850

6500

7150

7800

8450

9100

9750

10400

-650

10201.94 584

True Vertical Depth (1300 ft/in)

8 5/8"

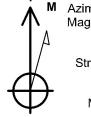
2516.40 390

Site: NBU 1022-5B PAD Well: NBU 1022-5G1BS

Wellbore: OH Design: OH

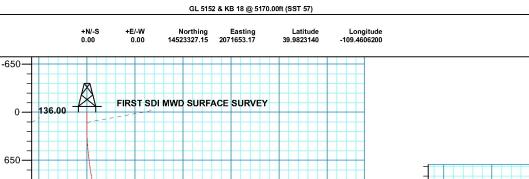
WELL DETAILS: NBU 1022-5G1BS





Azimuths to True North Magnetic North: 10.82°

Magnetic Field Strength: 51992.6snT Dip Angle: 65.79° Date: 12/11/2013 Model: BGGM2013



LAST SDI MWD SURFACE SURVEY

FIRST SDI MWD PRODUCTION SURVEY

LAST SDI MWD PRODUCTION SURVEY

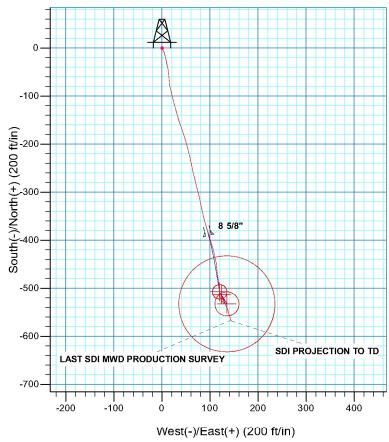
3250

SDI PROJECTION TO TD

1950

1300

Vertical Section at 166.04° (1300 ft/in)



LEGEND → NBU 1022-5G1BS, OH, PLAN #3 PRODUCTION VO **⊕** OH

Design: OH (NBU 1022-5G1BS/OH)

Created By: RobertScott Date: 10:03, August 04 2014



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-5B PAD NBU 1022-5G1BS

OH

Design: OH

Survey Report - Geographic

04 August, 2014





Survey Report - Geographic



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-5B PAD

 Well:
 NBU 1022-5G1BS

Wellbore: OH
Design: OH

Geo Datum: Map Zone:

Site

Local Co-ordinate Reference:

TVD Reference: GL 5152 & KB 18 @ 5170.00ft (SST 57)

MD Reference: GL 5152 & KB 18 @ 5170.00ft (SST 57)

Well NBU 1022-5G1BS

North Reference: True

Survey Calculation Method: Minimum Curvature

Database: Denver Sales

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W) System Datum: Mean Sea Level

NBU 1022-5B PAD, SECTION 5 T10S R22E

14,523,336.64 usft Northing: Site Position: Latitude: 39.9823387 2,071,681.68 usft -109.4605177 From: Lat/Long Easting: Longitude: **Position Uncertainty:** 0.00 ft **Grid Convergence:** 0.99° Slot Radius: 13.200 in

Well NBU 1022-5G1BS, 1084 FNL 1951 FEL 0.00 ft 39.9823140 **Well Position** +N/-S Northing: 14,523,327.15 usft Latitude: +E/-W 0.00 ft Easting: 2,071,653.17 usft Longitude: -109.4606200 0.00 ft Wellhead Elevation: ft **Ground Level:** 5,152.00 ft **Position Uncertainty**

Wellbore	ОН				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	12/11/2013	10.82	65.79	51,993

ОН Design Audit Notes: ACTUAL Version: 1.0 Tie On Depth: 0.00 Phase: Vertical Section: Depth From (TVD) +N/-S Direction +E/-W (ft) (ft) (ft) (°) 0.00 0.00 0.00 166.04

Survey Program	Date 8/4/2014		
From (ft)	To (ft) Survey (Wellbore)	Tool Name	Description
14.00 2,685.00	2,553.00 Survey #1 SDI MWD SURFACE (OH) 10,307.00 Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD SDI MWD	SDI MWD - Standard ver 1.0.1 SDI MWD - Standard ver 1.0.1

Survey										
Measu Depti (ff)		Inclination (°)	Azimuth (°)	Vertical Depth (ff)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usff)	Latitude	Longitude
1	0.00 4.00 6.00	0.00 0.00 0.35	0.00 0.00 207.07	0.00 14.00 136.00	0.00 0.00 -0.33	0.00 0.00 -0.17	14,523,327.15 14,523,327.15 14,523,326.81	2,071,653.17 2,071,653.17 2,071,653.01	39.9823140 39.9823140 39.9823131	-109.4606200 -109.4606200 -109.4606206
FIR	ST SD	I MWD SURF	ACE SURVEY	,						
	0.00	0.35	182.47	220.00	-0.82	-0.30	14,523,326.33	2,071,652.89	39.9823118	-109.4606211
	8.00 3.00	1.41 3.08	133.95 151.35	307.99 392.92	-1.84 -4.57	0.47 2.32	14,523,325.32 14,523,322.62	2,071,653.67 2,071,655.57	39.9823090 39.9823015	-109.4606183 -109.4606117
48	3.00	4.64	160.36	482.71	-10.12	4.70	14,523,317.12	2,071,658.05	39.9822863	-109.4606032
66	3.00 3.00 3.00	5.80 7.30 8.44	167.61 168.40 167.52	572.34 661.75 750.90	-17.99 -28.03 -40.08	6.90 9.03 11.60	14,523,309.28 14,523,299.28 14,523,287.27	2,071,660.38 2,071,662.68 2,071,665.47	39.9822646 39.9822371 39.9822040	-109.4605954 -109.4605878 -109.4605786



Survey Report - Geographic



US ROCKIES REGION PLANNING Company:

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 1022-5B PAD Well: NBU 1022-5G1BS

Wellbore: ОН ОН Design:

Local Co-ordinate Reference:

Well NBU 1022-5G1BS GL 5152 & KB 18 @ 5170.00ft (SST 57) TVD Reference:

MD Reference: GL 5152 & KB 18 @ 5170.00ft (SST 57)

North Reference:

Minimum Curvature Survey Calculation Method: Database: Denver Sales

ey ey									
Measured Depth (ft)	Inclination	Azimuth	Vertical Depth (ft)	+N/-S	+E/-W	Map Northing (usft)	Map Easting (usft)		
	(°)	(°)		(ft)	(ft)			Latitude	Longitude
843.00	8.89	174.48	839.88	-53.45	13.70	14,523,273.94	2,071,667.79	39.9821673	-109.46057
933.00	10.02	175.70	928.65	-68.18	14.96	14,523,259.24	2,071,669.30	39.9821268	-109.46056
1,023.00	11.08	166.82	1,017.13	-84.41	17.52	14,523,243.05	2,071,672.14	39.9820823	109.46055
1,203.00	12.66	164.80	1,193.28	-120.29	26.63	14,523,207.34	2,071,681.88	39.9819838	-109.46052
1,293.00	12.84	164.10	1,281.06	-139.42	31.96	14,523,188.30	2,071,687.53	39.9819312	-109.46050
1,383.00	12.84	161.28	1,368.81	-158.51	37.91	14,523,169.31	2,071,693.81	39.9818788	-109.46048
1,473.00	12.49	161.55	1,456.62	-177.22	44.20	14,523,150.72	2,071,700.42	39.9818275	-109.46046
1,563.00	11.70	165.15	1,544.62	-195.27	49.61	14,523,132.77	2,071,706.15	39.9817779	-109.4604
1,653.00	10.73	164.36	1,632.91	-212.16	54.21	14,523,115.96	2,071,711.04	39.9817315	-109.4604
1,743.00 1,833.00	10.20 10.46	167.26 167.96	1,721.41 1,809.95	-228.00 -243.76	58.23 61.69	14,523,100.19	2,071,715.33	39.9816880 39.9816447	-109.4604 -109.4603
				-243.76 -259.94		14,523,084.49	2,071,719.06		
1,923.00 2,013.00	10.73 10.64	167.79 166.21	1,898.42 1,986.85	-259.94	65.17 68.92	14,523,068.37	2,071,722.82 2,071,726.85	39.9816003 39.9815557	-109.4603 -109.4603
2,013.00	11.17	164.54	2,075.23	-276.20 -292.67	73.22	14,523,052.18	2,071,726.65 2,071,731.44		-109.4603 -109.4603
2,103.00	11.17	166.67	2,075.23 2,163.51	-292.67 -309.65	73.22 77.58	14,523,035.79	2,071,731.44	39.9815105 39.9814639	-109.4603
		169.37		-309.05	81.27	14,523,018.89	2,071,730.00	39.9814161	-109.4603
2,283.00 2,373.00	11.52 11.34	167.17	2,251.73 2,339.95	-344.51	84.89	14,523,001.55 14,522,984.16	2,071,744.00	39.9813681	-109.4603
2,463.00	11.54	163.66	2,333.33	-361.76	89.38	14,522,966.98	2,071,744.00	39.9813208	-109.4603
2,553.00	11.17	165.15	2,426.16	-378.81	94.14	14,522,950.02	2,071,748.79	39.9812739	-109.4602
				-570.01	34.14	14,022,000.02	2,071,733.04	33.3012733	-100.4002
2,685.00	DI MWD SURF 10.90	161.02	Y 2,645.96	-402.97	101.48	14,522,925.99	2,071,761.59	39.9812076	-109.4602
	DI MWD PROI			-402.31	101.40	14,322,923.99	2,071,701.59	39.9012070	-109.4002
2,780.00	11.85	165.36	2,739.10	-420.91	106.87	14,522,908.15	2,071,767.29	39.9811584	-109.4602
2,875.00	11.14	167.46	2,832.19	-439.30	111.33	14,522,889.84	2,071,772.07	39.9811079	-109.4602
2,971.00	10.59	175.39	2,926.48	-457.15	114.05	14,522,872.04	2,071,775.10	39.9810589	-109.4602
3,067.00	10.11	172.38	3,020.92	-474.29	115.87	14,522,854.93	2,071,777.22	39.9810118	-109.4602
3,162.00	8.35	173.52	3,114.68	-489.41	117.76	14,522,839.84	2,071,779.36	39.9809703	-109.4601
3,258.00	6.95	173.52	3,209.83	-502.11	119.2C	14,522,827.17	2,071,781.02	39.9809354	-109.4601
3,353.00	4.90	173.53	3,304.31	-511.85	120.31	14,522,817.45	2,071,782.30	39.9809087	-109.4601
3,448.00	3.33	165.65	3,399.07	-518.56	121.45	14,522,810.77	2,071,783.55	39.9808902	-109.4601
3,543.00	1.06	146.45	3,493.99	-521.96	122.62	14,522,807.38	2,071,784.78	39.9808809	-109.4601
3,638.00	0.86	148.07	3,588.98	-523.30	123.48	14,522,806.06	2,071,785.67	39.9808772	-109.4601
3,733.00	1.12	159.77	3,683.96	-524.78	124.18	14,522,804.59	2,071,786.39	39.9808732	-109.4601
3,828.00	1.49	149.18	3,778.94	-526.71	125.13	14,522,802.68	2,071,787.38	39.9808679	-109.4601
3,923.00	1.65	149.60	3,873.90	-528.95	126.46	14,522,800.46	2,071,788.74	39.9808617	-109.4601
4,018.00	0.44	114.9C	3,968.89	-530.28	127.48	14,522,799.15	2,071,789.79	39.9808581	-109.4601
4,114.00	0.62	97.41	4,064.88	-530.51	128.33	14,522,798.94	2,071,790.64	39.9808574	-109.4601
4,208.00	0.44	120.70	4,158.88	-530.76	129.14	14,522,798.70	2,071,791.46	39.9808568	-109.4601
4,303.00	0.81	357.62	4,253.87	-530.27	129.43	14,522,799.19	2,071,791.74	39.9808581	-109.4601
4,399.00	0.28	25.30	4,349.87	-529.38	129.50	14,522,800.08	2,071,791.79	39.9808605	-109.4601
4,494.00	0.28	78.21	4,444.87	-529.12	129.83	14,522,800.35	2,071,792.12	39.9808612	-109.4601
4,589.00	0.48	136.46	4,539.87	-529.36	130.33	14,522,800.12	2,071,792.62	39.9808606	-109.4601
4,684.00	0.53	128.52	4,634.86	-529.93	130.95	14,522,799.56	2,071,793.25	39.9808590	-109.4601
4,779.00	0.46	195.57	4,729.86	-530.57	131.19	14,522,798.93	2,071,793.50	39.9808573	-109.4601
4,874.00	0.53	184.33	4,824.86	-531.37	131.05	14,522,798.12	2,071,793.38	39.9808551	-109.4601
4,969.00	1.05	335.03	4,919.85	-531.02	130.65	14,522,798.46	2,071,792.97	39.9808560	-109.4601
5,065.00	1.01	334.26	5,015.84	-529.46	129.91	14,522,800.01	2,071,792.21	39.9808603	-109.4601
5,160.00	0.97	333.75	5,110.82	-527.99	129.20	14,522,801.47	2,071,791.46	39.9808644	-109.4601
5,255.00	0.90	338.45	5,205.81	-526.57	128.57	14,522,802.88	2,071,790.81	39.9808682	-109.4601
5,350.00	0.80	338.55	5,300.80	-525.26 -524.22	128.05	14,522,804.18	2,071,790.27	39.9808718	-109.4601
5,446.00	0.58	328.22	5,396.79	-524.22 -523.43	127.55	14,522,805.21	2,071,789.75	39.9808747	-109.4601
5,541.00	0.50	338.40 342.76	5,491.79 5,586.70	-523.43 522.63	127.14	14,522,805.99	2,071,789.33	39.9808769	-109.4601
5,636.00	0.52	342.76 5.22	5,586.79 5,692.79	-522.63 521.08	126.86 126.75	14,522,806.79	2,071,789.04	39.9808791	-109.4601
5,732.00	0.29	5.22	5,682.78 5,777.78	-521.98 531.67	126.75	14,522,807.44	2,071,788.92	39.9808809	-109.4601
5,827.00	0.09	34.13	5,777.78	-521.67	126.82	14,522,807.74	2,071,788.98	39.9808817	-109.46016



Survey Report - Geographic



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-5B PAD

 Well:
 NBU 1022-5G1BS

Wellbore: OH

Design: OH

Local Co-ordinate Reference: Well NBU 1022-5G1BS

TVD Reference: GL 5152 & KB 18 @ 5170.00ft (SST 57)

MD Reference: GL 5152 & KB 18 @ 5170.00ft (SST 57)

North Reference: True

Survey Calculation Method: Minimum Curvature

Database: Denver Sales

rvey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,923.00	0.05	39.03	5,873.78	-521.58	126.89	14,522,807.84	2,071,789.04	39.9808820	-109.46016
6,018.00	0.18	132.36	5,968.78	-521.65	127.02	14,522,807.77	2,071,789.18	39.9808818	-109.46016
6,113.00	0.40	134.57	6,063.78	-521.98	127.37	14,522,807.45	2,071,789.53	39.9808809	-109.46016
6,208.00	0.59	149.82	6,158.78	-522.64	127.85	14,522,806.80	2,071,790.03	39.9808791	-109.46016
6,304.00	0.88	144.69	6,254.77	-523.66	128.53	14,522,805.78	2,071,790.72	39.9808762	-109.46016
6,399.00	0.68	147.32	6,349.76	-524.73	129.25	14,522,804.73	2,071,791.46	39.9808733	-109.46015
6,494.00	0.58	288.95	6,444.76	-525.05	129.10	14,522,804.41	2,071,791.32	39.9808724	-109.46015
6,589.00	1.06	312.74	6,539.75	-524.30	128.00	14,522,805.14	2,071,790.21	39.9808745	-109.46016
6,685.00	0.70	310.10	6,635.74	-523.32	126.90	14,522,806.10	2,071,789.09	39.9808772	-109.46016
6,780.00	0.55	300.97	6,730.73	-522.71	126.07	14,522,806.69	2,071,788.24	39.9808788	-109.46017
6,875.00	0.35	303.16	6,825.73	-522.32	125.43	14,522,807.08	2,071,787.60	39.9808799	-109.46017
6,971.00	0.35	272.93	6,921.73	-522.14	124.89	14,522,807.24	2,071,787.06	39.9808804	-109.4601
7,066.00	0.34	232.69	7,016.73	-522.30	124.38	14,522,807.08	2,071,786.55	39.9808800	-109.4601
7,161.00	0.45	163.44	7,111.72	-522.83	124.26	14,522,806.55	2,071,786.44	39.9808785	-109.4601
7,257.00	0.71	67.99	7,207.72	-522.97	124.92	14,522,806.42	2,071,787.10	39.9808781	-109.4601
7,352.00	0.82	46.66	7,302.71	-522.28	125.96	14,522,807.12	2,071,788.13	39.9808800	-109.4601
7,447.00	0.79	66.21	7,397.70	-521.55	127.06	14,522,807.87	2,071,789.21	39.9808820	-109.4601
7,543.00	0.79	346.84	7,493.70	-520.64	127.51	14,522,808.79	2,071,789.65	39.9808845	-109.4601
7,638.00	0.62	310.68	7,588.69	-519.66	126.97	14,522,809.76	2,071,789.10	39.9808872	-109.4601
7,734.00	0.53	313.44	7,684.68	-519.02	126.26	14,522,810.39	2,071,788.37	39.9808890	-109.4601
7,829.00	0.54	343.17	7,779.68	-518.29	125.81	14,522,811.11	2,071,787.91	39.9808910	-109.4601
7,924.00	0.09	204.11	7,874.68	-517.93	125.65	14,522,811.47	2,071,787.74	39.9808920	-109.4601
8,019.00	0.09 0.24	358.44 196.95	7,969.68 8,065.68	-517.92 -518.04	125.61 125.55	14,522,811.47	2,071,787.71 2,071,787.65	39.9808920 39.9808917	-109.4601
8,115.00 8,210.00	0.24	196.95	8,160.68	-518.51	125.55	14,522,811.36 14,522,810.88	2,071,787.54	39.9808904	-109.4601 -109.4601
8,305.00	0.55	178.88	8,255.67	-516.51 -519.25	125.43	14,522,810.14	2,071,787.50	39.9808883	-109.4601
8,401.00	0.26	182.75	8,351.67	-519.25 -519.93	125.38	14,522,810.14	2,071,787.51	39.9808865	-109.4601
8,496.00	0.53	152.43	8,446.67	-520.54	125.57	14,522,808.86	2,071,787.71	39.9808848	-109.4601
8,591.00	0.71	152.44	8,541.66	-521.45	126.04	14,522,807.96	2,071,788.20	39.9808823	-109.4601
8,686.00	1.23	146.19	8,636.65	-522.82	126.88	14,522,806.60	2,071,789.06	39.9808786	-109.4601
8,782.00	1.36	154.73	8,732.63	-524.70	127.94	14,522,804.74	2,071,790.16	39.9808734	-109.4601
8,877.00	1.37	156.75	8,827.60	-526.76	128.87	14,522,802.69	2,071,791.12	39.9808677	-109.4601
8,972.00	1.48	149.70	8,922.57	-528.87	129.94	14,522,800.61	2,071,792.22	39.9808619	-109.4601
9,068.00	1.60	150.93	9,018.53	-531.11	131.22	14,522,798.39	2,071,793.54	39.9808558	-109.4601
9,163.00	1.76	161.85	9,113,49	-533.65	132.32	14,522,795.86	2,071,794.68	39.9808488	-109.4601
9,258.00	1.65	159.59	9,208.45	-536.32	133.25	14,522,793.21	2,071,795.66	39.9808415	-109.4601
9,353.00	1.85	154.55	9,303.41	-538.99	134.38	14,522,790.56	2,071,796.84	39.9808342	-109.4601
9,449.00	1.69	148.60	9,399.36	-541.60	135.79	14,522,787.98	2,071,798.29	39.9808270	-109.4601
9,544.00	1.85	159.81	9,494.32	-544.23	137.05	14,522,785.37	2,071,799.59	39.9808198	-109.4601
9,639.00	1.84	171.17	9,589.27	-547.18	137.81	14,522,782.43	2,071,800.41	39.9808117	-109.4601
9,735.00	1.98	167.41	9,685.21	-550.32	138.41	14,522,779.30	2,071,801.06	39.9808030	-109.4601
9,830.00	1.90	162.56	9,780.16	-553.42	139.24	14,522,776.21	2,071,801.94	39.9807945	-109.4601
9,925.00	1.70	165.21	9,875.11	-556.29	140.07	14,522,773.36	2,071,802.82	39.9807867	-109.4601
10,020.00	1.88	159.09	9,970.07	-559.11	140.99	14,522,770.56	2,071,803.79	39.9807789	-109.4601
10,115.00	1.92	157.88	10,065.02	-562.04	142.14	14,522,767.65	2,071,804.99	39.9807709	-109.4601
10,210.00	1.85	160.34	10,159.96	-564.96	143.26	14,522,764.75	2,071,806.16	39.9807629	-109.4601
10,252.00	1.85	160.78	10,201.94	-566.23	143.71	14,522,763.48	2,071,806.63	39.9807593	-109.4601
LAST SE	I MWD PROD	UCTION SUF	RVEY						
10,307.00	1.85	160.78	10,256.91	-567.91	144.29	14,522,761.82	2,071,807.25	39.9807547	-109.4601
SDI PRO	JECTION TO	TD							



Survey Report - Geographic



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-5B PAD

 Well:
 NBU 1022-5G1BS

Wellbore: OH

Design: OH

Local Co-ordinate Reference: Well NBU 1022-5G1BS

TVD Reference: GL 5152 & KB 18 @ 5170.00ft (SST 57)

MD Reference: GL 5152 & KB 18 @ 5170.00ft (SST 57)

North Reference: Tru

Survey Calculation Method: Minimum Curvature

Database: Denver Sales

Design Annotations				
Measur Depth	Depth	Local +N/-S	Coordinates +E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
136	3.00 136	5.00 -0.33	-0.17	FIRST SDI MWD SURFACE SURVEY
2,553	3.00 2,516	5.40 -378.81	94.14	LAST SDI MWD SURFACE SURVEY
2,685	5.00 2,645	5.96 -402.97	101.48	FIRST SDI MWD PRODUCTION SURVEY
10,252	2.00 10,20°	.94 -566.23	143.71	LAST SDI MWD PRODUCTION SURVEY
10,30	7.00 10,256	5.91 -567.91	144.29	SDI PROJECTION TO TD

Checked By: Approved By: Date:

8/4/2014 9:57:00AM Page 5 COMPASS 5000.1 Build 70

US ROCKIES REGION Operation Summary Report	
Project: UTAH-UINTAH Site: NBU 1022-5B PAD Rig name no.: SWABBCO 6/6 Event: COMPLETION Start date: 10/9/2014 End date: 2/10/2015	
Event: COMPLETION Start date: 10/9/2014 End date: 2/10/2015	
5617 6616 . 10/0/2011	
Active datum: RKR @5 170 00usft (above Mean Sea UWI: NW/NE/0/10/S/22/E/5/0/0/26/PM/N/1084/F/0/1951/0/0	
Level)	
Date Time Duration Phase Code Sub P/U MD from Operation Start-End (hr) Code (usft)	
9/16/2014 -	
10/12/2014 8:00 - 9:00 1.00 SUBSPR 52 B P FILL SURFACE CSG. MIRU CAMERON QUIC PRESSURE TEST CSG 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MI -82 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. PRESSURE TEST 8 5/8 X 4 1/2 TO 500 PSI H 5 MIN LOST -19 PSI, BLED PSI OFF, REINSTALLEI OFF SWIFN NO PRESSURE ON SURFACE CASING FILLED SURFACE WITH 3 BBLS H2O	IN LOST H HELD FOR
1/17/2015 9:00 - 10:00 1.00 SUBSPR 52 B P FILL SURFACE CSG. MIRU CAMERON QUICE PRESSURE TEST CSG 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MI -34 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. PRESSURE TEST 8 5/8 X 4 1/2 TO 500 PSI H 5 MIN LOST -19 PSI, BLED PSI OFF, REINSTALLEI OFF SWIFN NO PRESSURE ON SURFACE CASING FILLED SURFACE WITH 3 BBLS H2O TESTED ON 10-12-14	IN LOST H HELD FOR D POP
1/23/2015 13:00 - 14:00 1.00 FRAC 37 E P PERF STG #1 AS DESIGNED, SWI, SDFWE.	
1/26/2015 6:30 - 6:45 0.25 FRAC 48 P HSM-JSA 6:45 - 16:30 9.75 FRAC 36 H P FRAC STG #1) WHP 1072 PSI, BRK 4404 PS BPM. ISIP 3457 PSI, FG. 0.79 ISIP 3505 PSI NPI 48 PSI, X/O TO WL.\n\nSET CBP & PERF AS DESIGNED, X/O TO FRAC.\n\nFRAC STG WHP 1130 PSI, BRK 2712 PSI @ 4.8 BPM. IS PSI, FG. 0.64 ISIP 2310 PSI, FG. 0.7, NPI 46 X/O TO WL.\n\nSET CBP & PERF STG #3 AS DESIGNED, SWI, SDFN.	I, FG. 0.79, F STG #2 G #2) SIP 1850 60 PSI,
1/27/2015 6:30 - 6:45 0.25 FRAC 48 P HSM-JSA	
6:45 - 16:00 9.25 FRAC 36 H P FRAC STG #3) WHP 1607 PSI, BRK 3533 PS BPM. ISIP 1875 PSI, FG. 0.65 ISIP 2600 PSI NPI 725 PSI, X/O TO WL.\n\nSET CBP & PER AS DESIGNED, X/O TO FRAC.\n\nFRAC STG WHP 406 PSI, BRK 3021 PSI @ 3.7 BPM. ISI PSI, FG. 0.71 ISIP 2760 PSI, FG. 0.76, NPI 4 X/O TO WL.\n\nSET CBP & PERF STG #5 AS DESIGNED, SWI, SDFN.	I, FG. 0.74, RF STG #4 G #4) IP 2345 115 PSI
1/28/2015 6:30 - 6:45 0.25 FRAC 48 P HSM-JSA	

3/2/2015 1:21:26PM 1

Sundry	z Number:	61449 7	APT We	N [[·	lumbe	r: 4	130475358	350000
				U	S ROC	KIES R	EGION	
				Opera	tion S	Summ	ary Report	
Well: NBU 1022	2-5G1BS GREEN						Spud date: 1/12	2/2014
Project: UTAH-U	HATMIL		Site: NBU	J 1022-5B	PAD			Rig name no.: SWABBCO 6/6
Event: COMPLE	ETION		Start date	e: 10/9/20	14			End date: 2/10/2015
Active datum: RKB @5,170.00usft (above Mean Sea Level)			a	UWI: NV	W/NE/0/1	0/S/22/E	/5/0/0/26/PM/N/10	84/E/0/1951/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	6:45 - 17:45	11.00	FRAC	36	Н	Р		FRAC STG #5) WHP 362 PSI, BRK 2662 PSI @ 3.5 BPM. ISIP 1708 PSI, FG. 0.64 ISIP 2522 PSI, FG. 0.74, NPI 814 PSI, X/O TO WL.\n\nSET CBP & PERF STG #6 AS DESIGNED, X/O TO FRAC.\n\nFRAC STG #6) WHP 963 PSI, BRK 2559 PSI @ 6.8 BPM. ISIP 1800 PSI, FG. 0.66 ISIP 2063 PSI, FG. 0.69, NPI 263 PSI. X/O TO WL.\n\nSET CBP & PERF STG #7 AS DESIGNED, X/O TO FRAC.\n\nFRAC STG #7) WHP 670 PSI, BRK 2318 PSI @ 3.4 BPM. ISIP 1200 PSI, FG. 0.59 ISIP 2411 PSI, FG. 0.75, NPI 1211 PSI, X/O TO WL.\n\nSET CBP & PERF STG #8 AS DESIGNED, SWI, SDFN.
1/29/2015	7:00 - 7:15	0.25	FRAC	48		Р		HSM-JSA
	7:15 - 15:30	8.25	FRAC	36	Н	Р		FRAC STG #8) WHP 1330 PSI, BRK 2019 PSI @ 3.7 BPM. ISIP 1580 PSI, FG. 0.65 ISIP 2323 PSI, FG. 0.75, NPI 743 PSI, X/O TO WL.\n\nSET CBP & PERF STG #9 AS DESIGNED, X/O TO FRAC.\n\nFRAC STG #9) WHP 1184 PSI, BRK 2802 PSI @ 3.7 BPM. ISIP 1414 PSI, FG. 0.64 ISIP 1861 PSI, FG. 0.7, NPI 447 PSI, X/O TO WL.\n\nSET KILL PLUG.\n\nRDMO WL & FRAC EQUIP.\n\nTOTAL FLUID- 12945 BBLS\nTOTAL SAND- 276316 LBS\n
2/9/2015	7:00 - 7:30	0.50	DRLOUT	48		Р		HSM, WORKING W/ PIPE WRANGLER PICKING UP TBG.
	7:30 - 10:00	2.50	DRLOUT	30	Α	Р		4OF 5, RIGGED DWN OFF YELLOW WELL, MOVED OVER & RIGGED UP, ND WH NU BOPS RL FLOOR & TBG EQUIP.
	10:00 - 15:00	5.00	DRLOUT	31	I	Р		TALLY & PU 37/8 BIT, POBS, 222 JTS 23/8 P-110 TAG KILL PLUG RU DRLG EQUIP PREP TO D/O IN AM. SWI SDEN

Р

2/10/2015

7:00 - 7:30

0.50

DRLOUT

48

3/2/2015 1:21:26PM 2

HSM, DRILLING CBPS, WATCH LINE PRESSURE.

<u> Sundry Number: 61449 APT Well Number: 43047535850000</u> **US ROCKIES REGION Operation Summary Report** Spud date: 1/12/2014 Well: NBU 1022-5G1BS GREEN Project: UTAH-UINTAH Site: NBU 1022-5B PAD Rig name no.: SWABBCO 6/6 Event: COMPLETION Start date: 10/9/2014 End date: 2/10/2015 UWI: NW/NE/0/10/S/22/E/5/0/0/26/PM/N/1084/E/0/1951/0/0 Active datum: RKB @5,170.00usft (above Mean Sea Date P/U Phase Code Time Duration Sub MD from Operation Start-End Code (hr) (usft) 7:30 - 17:00 9.50 DRLOUT 44 С Ρ 4 OF 5, BROKE CIRC CONV, TEST BOPS TO 3,000 PSI, RIH.\n\nC/O 0' SAND TAG 1ST PLUG @ 7030' DRL PLG IN 10 MIN, 100 PSI INCREASE RIH.\n\nC/O 20' SAND TAG 2ND PLUG @ 7325' DRL PLG IN 8 MIN, 100 PSI INCREASE RIH.\n\nC/O 30' SAND TAG 3RD PLUG @ 7633' DRL PLG IN 8 MIN, 200 PSI INCREASE RIH.\n\nC/O 30' SAND TAG 4TH PLUG @ 7898' DRL PLG IN 10 MIN, 300 PSI INCREASE RIH.\n\nC/O 20' SAND TAG 5TH PLUG @ 8228' DRL PLG IN 10 MIN, 200 PSI INCREASE RIH.\n\nC/O 25' SAND TAG 6TH PLUG @ 8426' DRL PLG IN 10 MIN. 100 PSI INCREASE RIH.\n\nC/O 30' SAND TAG 7TH PLUG @ 8612' DRL PLG IN 10 MIN, 300 PSI INCREASE RIH.\n\nC/O 15' SAND TAG 8TH PLUG @ 8821' DRL PLG IN 8 MIN, 200 PSI INCREASE RIH.\n\nC/O 20' SAND TAG 9TH PLUG @ 9091' DRL PLG IN 8 MIN, 700 PSI INCREASE RIH.\n\nC/O TC 10,109.24', CIRC CLN, RD SWIVEL, L/D 40 JTS, LAND TBG, ND BOPS NU WH, TEST FL, PUMPED OFF BIT, TURN WELL TO FB CREW.RIG DWN MOVE OVER & SPOT ON 5 OF 5 SDFN\n\nKB = 18'\n41/16 **HANGER = .83'** (SURFACE OPEN & LOCKED)\n279 JTS 23/8 P-110 = 8838.60' (SICP 2100, FTP 50) \nPOBS W/ 1.875 X/N = 2.20'\nEOT @ 8859.63'\n\nTWTR 12,945 BBLS\nTWR 1400 BBLS\nTWLTR 11,545\n\n327 JT HAULED OUT, P-110\n279

3/2/2015 1:21:26PM 3

RECEIVED: Mar. 10, 2015

LANDED\n48 TO RETURN\n

US ROCKIES REGION

General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-5G1BS GREEN	Wellbore No.	00
Well Name	NBU 1022-5G1BS	Wellbore Name	NBU 1022-5G1BS
Report no.	←	Report date	1/22/2015
Project	UTAH-UINTAH	Site	NBU 1022-5B PAD
Rig Name/No.		Event	COMPLETION
Start date	10/9/2014	End date	2/10/2015
Spud date	1/12/2014	Active datum	RKB @5,170.00usft (above Mean Sea Level)
UWI	NW/NE/0/10/S/22/E/5/0/0/26/PM/N/1084/E/0/1951/0/0		

1.3 General

Contractor	Job method	Supervisor	
Perforated Assembly	Conveyed method		

Summary

1.5

1.4 Initial Conditions

Fluid type		Fluid density	Gross Interval	7,094.0 (usft)-9,994.0 (usft Start Date/Time	Start Date/Time	1/26/2015 12:00AM
Surface press.		Estimate res press	No. of intervals	28	58 End Date/Time	1/26/2015 12:00AM
TVD fluid top		Fluid head	Total shots	216	216 Net perforation interval	72.00 (usft)
Hydrostatic press.		Press. difference	Avg. shot density	3.00 (shot/ft)	3.00 (shot/ft) Final surface pressure	
Balance Cond	NEUTRAL				Final press. date	

! Intervals

2.1 Perforated Interval

March 02, 2015 at 1:22 pm

Misrun How Guns	Colliveyed			
Misrun				
Reason		9.00 PRODUCTION		
Charge	(gram)	19.00		
ठं	/Charge manufacturer			
Phasing		3.125 120.00		
Carr	(in)	3.125		
Carr type /Stage No		0.410 EXP/		
Diameter	(III)	0.41(
2	Shot			
Shot	(shot/ft)	3.00		
MD 3		,094.0 7,095.0		
Q ₹	(nsft)	7,094.0		
CCL-TS	(usit)			
©CCL@	(usit)			
Formation/	llov lacari	MESA	VERDE/	
Date		1/26/2015	12:00AM	

OpenWells

US ROCKIES REGION

Perforated Interval (Continued) 2.1

Misrun How Guns Conveyed																						
Reason	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION
Charge weight (gram)	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
Charge desc. /Charge manufacturer																						
Phasing (°)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Size (in)	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125
Diameter Carr type /Stage No (in)	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/
Shot Mishres/ density Add. (shot/ft) Shot	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
base der (sh. (sh.	7,229.0	7,240.0	7,269.0	7,290.0	7,305.0	7,351.0	7,391.0	7,407.0	7,421.0	7,432.0	7,465.0	7,559.0	0.609.0	7,711.0	7,735.0	7,760.0	0.777,7	7,815.0	7,836.0	7,864.0	7,984.0	8,008.0
top (usft)	7,228.0	7,239.0	7,268.0	7,288.0	7,303.0	7,350.0	7,390.0	7,406.0	7,420.0	7,431.0	7,464.0	7,558.0	7,608.0	7,710.0	7,734.0	7,759.0	7,776.0	7,814.0	7,835.0	7,862.0	7,983.0	8,007.0
(usft)																						
CCL(@ (usft)																						
Formation/ Reservoir	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A	M E S A VERDE/	M E S A VERDE/
Date	1/26/2015 N 12:00AM	1/26/2015 N 12:00AM	1/26/2015 N 12:00AM \		1/26/2015 N 12:00AM		1/26/2015 N 12:00AM			1/26/2015 N 12:00AM	10	10		1/26/2015 N 12:00AM				1/26/2015 N 12:00AM				

RECEIVED: Mar. 10, 2015

2.1 Perforated Interval (Continued)

How Guns Conveyed																						
Misrun																						
Reason	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION	19.00 PRODUCTION
Charge weight (gram)	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
Charge desc. /Charge manufacturer																						
Phasing (°)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
size (in)	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125
Ulameter Carr type / Stage No (in)	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/	0.410 EXP/
Add. Shot																						
density (shot/ft)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
MID base (usft)	8,029.0	8,087.0	8,124.0	8,168.0	8,208.0	8,271.0	8,308.0	8,328.0	8,369.0	8,398.0	8,480.0	8,504.0	8,533.0	8,543.0	8,564.0	8,592.0	8,720.0	8,758.0	8,777.0	8,789.0	8,900.0	8,913.0
top (usft)	8,028.0	8,086.0	8,123.0	8,167.0	8,206.0	8,270.0	8,307.0	8,326.0	8,367.0	8,396.0	8,479.0	8,503.0	8,532.0	8,542.0	8,562.0	8,590.0	8,718.0	8,756.0	8,775.0	8,787.0	8,899.0	8,912.0
(nsft)																						
CCL(@)																						
Reservoir	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/	M E S A VERDE/
Dale	1/26/2015 N 12:00AM \	1/26/2015 N 12:00AM	1/26/2015 N 12:00AM	1/26/2015 N 12:00AM	10		10	10				1/26/2015 N	1/26/2015 IV	1/26/2015 P	1/26/2015 N 12:00AM	1/26/2015 N	10	1/26/2015 N			1/26/2015 N	

Perforated Interval (Continued)

			_		_							_									_	_	_	_		
Misrun How Guns	Conveyed																									
Misrun																										
Reason		19.00 PRODUCTION	MOITOI GO OF OF	NOTION	MOITOI IOO 81		19.00 PRODUCTION		19.00 PRODUCTION		19.00 PRODUCTION		19.00 PRODUCTION		19.00 PRODUCTION		19.00 PRODUCTION		19.00 PRODUCTION		19.00 PRODUCTION		19.00 PRODUCTION		19.00 PRODUCTION	
Charge	weight (gram)	19.00	0,00	0.6	19.00	2	19.00		19.00		19.00		19.00		19.00		19.00		19.00		19.00		19.00		19.00	
Charge desc.	/Charge manufacturer																									
Phasing	(0)	120.00	00.00	00.07	120.00	200	120.00		120.00		120.00		120.00		120.00		120.00		120.00		120.00		120.00		120.00	
Carr	size (in)	3.125	, 10,	J. 123	3 125		3.125		3.125		3.125		3.125		3.125		3.125		3.125		3.125		3.125		3.125	
Carr type /Stage No		EXP/	Ž.		EXD/		EXP/		EXP/		EXP/		EXP/		EXP/		EXP/		410 EXP/		EXP/		EXP/		EXP/	
Diameter	(in)	0.410 EXP/	044		0 A10 EXD	<u> </u>	0.410 EXP/		0.410		0.410 EXP/		0.410 EXP/		0.410 EXP/											
Misfires/	Add. Shot																									
Shot	density (shot/ft)	3.00	000		700		3.00		3.00		3.00		3.00		3.00		3.00		3.00		3.00		3.00		3.00	
MD	base (usft)	8,928.0 8,929.0	0 053 0 0 053 0	0.556,0	8 964 0 8 965 0	2000	8,981.0 8,982.0		9,030.0 9,031.0		9,060.0 9,061.0		9,835.0 9,836.0		9,864.0 9,865.0		9,875.0 9,876.0		0.068,6 0.688,6		9,923.0 9,924.0		9,943.0 9,944.0		9,992.0 9,994.0	
MD	top (usft)	8,928.0	0 0 0	7.706,0	8 964 0	5	8,981.0		9,030.0		9,060.0		9,835.0		9,864.0		9,875.0		9,889.0		9,923.0		9,943.0		9,992.0	
CCL-TS	(nstt)																									
@TDD	(nsft)																									
Formation/	Reservoir	M E S A	١.	VERDE/	di di		M R S A	VERDE/	MESA	VERDE/	M E S A	VERDE/	MESA	VERDE/	M E S A	VERDE/	M S A	VERDE/	M E S A	VERDE/	MESA	VERDE/	MESA	VERDE/	M E S A	VERDE/
Date		1/26/2015	1/26/201E	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM	1/26/2015	12:00AM

Plots

March 02, 2015 at 1:22 pm

OpenWells

Well Name: NBU 1022-5G1BS Wellbore Name: NBU 1022-5G1BS

 Wellbore Name:
 NBU 1022-5G11

 WINS No:
 C0968

 API No:
 4304753585

 State:
 UTAH

 Lat:
 39.982313
 TVD:
 10257
 Working Interest:

 Long:
 -109.460619
 PBTD:
 10248
 Ground Elevation:

 Spud Date:
 01/12/2014
 PB TVD:
 10198
 KB Height:

Field Name: GNB_NATURAL BUTTES

TD Date: 07/31/2014 Target Formation: WASATCH / MESAVERDE

TD:

10307

ST#:

00

100.00

5,152.00

5170

County: UINTAH Location Description: NW NE 5 10S 22E 1,084' FNL 1,951' FEL

County: OINTAH					•	RFORATIO		1,084° FNL 1,951° i		
Date Formation	Zone	Тор	Btm	SPF	No. Holes		Phasing	Reason	Status	Comments
01/26/2015 MESA VERDE	MESAVERDE	7094	7095	3	3	0.41	120	PRODUCTION	OPEN	Comments
01/26/2015 MESA VERDE	MESAVERDE	7228	7229	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7239	7240	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7268	7269	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7288	7290	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7303	7305	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7350	7351	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7390	7391	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE		7407	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7420	7421	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE		7432	3	3 3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE		7464	7465			0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE		7559	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7608	7609	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7710	7711	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7734	7735	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7759	7760	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7776	7777	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7814	7815	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7835	7836	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7862	7864	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	7983	7984	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8007	8008	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8028	8029	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8086	8087	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8123	8124	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8167	8168	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8206	8208	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8270	8271	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8307	8308	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8326	8328	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8367	8369	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8396	8398	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8479	8480	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8503	8504	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8532	8533	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8542	8543	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8562	8564	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8590	8592	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8718	8720	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8756	8758	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8775	8777	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8787	8789	3	6	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8899	8900	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8912	8913	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8928	8929	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE		8953	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	8964	8965	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE		8982	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	MESAVERDE	9030	9031	3	3	0.41	120	PRODUCTION	OPEN	
	MESAVERDE	9060								
01/26/2015 MESA VERDE			9061	3	3	0.41	120 120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	BLACKHAWK		9836	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	BLACKHAWK		9865	3	3	0.41	120	PRODUCTION	OPEN	
01/26/2015 MESA VERDE	BLACKHAWK	98/5	9876	3	3	0.41	120	PRODUCTION	OPEN	

Sundry	Number	: 6144	9 AP:	I We	11 Numb	per:	4304753	3585	50000			
Well Name: Wellbore Name: WINS No: API No: State: County:	NBU 1022-50 NBU 1022-50 C0968 4304753585 UTAH UINTAH				Field Name: Lat: Long: Spud Date: TD Date: Location Des	39.98231 -109.460 01/12/20 07/31/20	619 14		-	rmation: WAS	ST#: Working Interest: Ground Elevation: KB Height: SATCH / MESAVERDE	00 100.00 5,152.00 5170
01/26/2015 MESA	VERDE B	LACKHAWK	9889	9890	3 3	3 (0.41 1	20	PRODUCTIO	ON OPEN		
01/26/2015 MESA	VERDE B	LACKHAWK	9923	9924	3 3	3 ().41 1	20	PRODUCTIO	ON OPEN		
01/26/2015 MESA	VERDE B	LACKHAWK	9943	9944	3 3	3 ().41 1	20	PRODUCTIO	ON OPEN		
01/26/2015 MESA	VERDE B	LACKHAWK	9992	9994	3 6	6 ().41 1	20	PRODUCTIO	ON OPEN		

Battery Directions:

Well Directions: